

45 50 55 60 590
ggg ggc nwc gcg tca tca ctg cag aaa cgt gca ggc a
Gly Ala Xaa Ala Ser Ser Leu Gln Lys Arg Ala Gly

65 70

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<210> 1488
<211> 321
<212> DNA
<213> Homo sapiens
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<400>	1488		
aaaaaactac aactcccagg gcgctcccgga gcaggccaac gggactacgg gaagcagcgg	60		
gcagcggcccc gcgggaggca cctcggagat ctgggtgcaa aagcccaggg ttaggaaccg	120		
tagnc atg ctg cgc ccc aag gct ttg acc cag gtg cta agc caa gcc aac	170		
Met Leu Arg Pro Lys Ala Leu Thr Gln Val Leu Ser Gln Ala Asn			
1 5 10 15			
act gga ggc gtc cag agc acc ctg ctg ctg aat aac gag gga tca ctg	218		
Thr Gly Gly Val Gln Ser Thr Leu Leu Leu Asn Asn Glu Gly Ser Leu			
20 25 30			
ctg gcc tac tct ggt tac ggg gac act gac gcc cgg gtc acc gct gcc	266		
Leu Ala Tyr Ser Gly Tyr Gly Asp Thr Asp Ala Arg Val Thr Ala Ala			
35 40 45			
ata gcc agt aac atc tgg gcc gcc tac gac cgg aac ggg aac caa gcg	314		
Ile Ala Ser Asn Ile Trp Ala Ala Tyr Asp Arg Asn Gly Asn Gln Ala			
50 55 60			
ttt aat g	321		
Phe Asn			
65			

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<220>  
<221> CDS  
<222> 66..305
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<400> 1489
aaaagcccca ccccggtgcg cgggtatggc ggccagcctg tggatgggcg cacctggaac      60
cctac atg gat gag aac ttc atc tcc aga gcc ttt gcc acc atg ggg gag      110
      Met Asp Glu Asn Phe Ile Ser Arg Ala Phe Ala Thr Met Gly Glu
          1              5              10              15
acc gta atg agc gtc aaa att atc cga aac cgc ctc act ggg atc cca      158
Thr Val Met Ser Val Lys Ile Ile Arg Asn Arg Leu Thr Gly Ile Pro
          20              25              30
gct ggc tac tgc ttt gta gaa ttt gca gat ttg gcc aca gct gag aag      206
Ala Gly Tyr Cys Phe Val Glu Phe Ala Asp Leu Ala Thr Ala Glu Lys

```

	35		40		45	
tgt ttg cat aaa att aat ggg aaa ccc ctt cca gga gcc aca cct gcg						254
Cys Leu His Lys Ile Asn Gly Lys Pro Leu Pro Gly Ala Thr Pro Ala						
	50		55		60	
aaa cgt ttt aaa ctg aac tat gcc act tac ggg aaa caa cca gat aac						302
Lys Arg Phe Lys Leu Asn Tyr Ala Thr Tyr Gly Lys Gln Pro Asp Asn						
	65		70		75	
agc c						306
Ser						
80						

<210> 1490

<211> 472

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 213..470

<400> 1490

agtgcgcatac cggacgtagg aggtggaggt tgtggaattc gccgttcgaa agcagggact	60
aaaagcccca cttcgtctta cgttccgaaa ggaaggcgctc tgttgagcct ttctctcagt	120
cgtgagggag gcgtcgacgg cgtgcggaag tcctgagttg aggcttgagg gatcctttcc	180
ggagaaagcg caggctaaag ccgcaggtga ag atg tcc aac tac gtg aac gac	233
Met Ser Asn Tyr Val Asn Asp	
1 5	
atg tgg ccg ggc tcg ccg cag gag aag gat tcg ccc tcg acc tcg cgg	281
Met Trp Pro Gly Ser Pro Gln Glu Lys Asp Ser Pro Ser Thr Ser Arg	
10 15 20	
tcg ggc ggg tcc agc cgg ctg tcg tcg cgg tct agg agc cgc tct ttt	329
Ser Gly Gly Ser Ser Arg Leu Ser Ser Arg Ser Arg Ser Arg Ser Phe	
25 30 35	
tcc aga agc tct cgg tcc cat tcc cgc gtc tcg agc cgg ttt tcg tcc	377
Ser Arg Ser Ser Arg Ser His Ser Arg Val Ser Ser Arg Phe Ser Ser	
40 45 50 55	
agg agt cgg agg agc aag tcc agg tcc cgt tcc cga agc gcc acc agc	425
Arg Ser Arg Arg Ser Lys Ser Arg Ser Arg Ser Arg Ser Ala Thr Ser	
60 65 70 75	
gga agt aca ggc gct act cgc ggt cat act cgc gga scg gtc gcg at	472
Gly Ser Thr Gly Ala Thr Arg Gly His Thr Arg Gly Xaa Val Ala	
75 80 85	

<210> 1491

<211> 419

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 62..418

<400> 1491

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agtgcgcggc cgcggtgctc taccggcgctg tcgctccgcc ccagggagag ccggcgctac      60
c atg gag gag tac cat cgc cac tgc gac gag gtt ggc ttc aat gct gag      109
  Met Glu Glu Tyr His Arg His Cys Asp Glu Val Gly Phe Asn Ala Glu
    1             5             10             15
gaa gcc cac aat att gtc aaa gag tgt gta gat ggg gtt tta ggt ggt      157
Glu Ala His Asn Ile Val Lys Glu Cys Val Asp Gly Val Leu Gly Gly
          20             25             30
gaa gat tat aat cac aac amc atc aac cag tgg act gca agc ata gtg      205
Glu Asp Tyr Asn His Asn Xaa Ile Asn Gln Trp Thr Ala Ser Ile Val
          35             40             45
gaa caa tcc tta aca cac ctg gtt aag ttg gga aaa gcc tat aaa tat      253
Glu Gln Ser Leu Thr His Leu Val Lys Leu Gly Lys Ala Tyr Lys Tyr
          50             55             60
att gtg acc tgt gca gtg gtc cag aag agc gca tat ggc ttt cac aca      301
Ile Val Thr Cys Ala Val Val Gln Lys Ser Ala Tyr Gly Phe His Thr
          65             70             75             80
gcc agc tcc tgt ttt tgg gat acc aca tct gat gga acc tgt acc gta      349
Ala Ser Ser Cys Phe Trp Asp Thr Thr Ser Asp Gly Thr Cys Thr Val
          85             90             95
aga tgg gag aac cgg acg ggg tcg ggc acg gag gtc tcg ctg cgg atg      397
Arg Trp Glu Asn Arg Thr Gly Ser Gly Thr Glu Val Ser Leu Arg Met
          100             105             110
trg atc acg gtg gac gtc ggg g
Xaa Ile Thr Val Asp Val Gly
          115

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<210> 1492

<211> 395

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 149..394

<400> 1492

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gcagttcttg agttccacat gcagagcaga tgcgacagct agaagtgagt ggggcccaga      60
ccctggccca ggaagatcca cttaaaggagg ccatccttcc gccttcttct gcaggagtca      120
ggatggaaaag gcagatgtaa agtccctc atg gcg aaa tat aac acg ggg ggc      172
          Met Ala Lys Tyr Asn Thr Gly Gly
            1             5
aac ccg aca gag gat gtc tca gtc aat agc cga ccc ttc aga gtc aca      220
Asn Pro Thr Glu Asp Val Ser Val Asn Ser Arg Pro Phe Arg Val Thr
          10             15             20
ggg cca aac tca tct tca gga ata caa gca aga aag aac tta ttc aac      268
Gly Pro Asn Ser Ser Ser Gly Ile Gln Ala Arg Lys Asn Leu Phe Asn
          25             30             35             40
aac caa gga aat gcc agc cct cct gca gga ccn agc aat gta cct aag      316
Asn Gln Gly Asn Ala Ser Pro Pro Ala Gly Pro Ser Asn Val Pro Lys
          45             50             55
ttt ggg tcc cca aag cca cct gtg gca gtr aac ctt ctt ctg agg aaa      364
Phe Gly Ser Pro Lys Pro Pro Val Ala Val Asn Leu Leu Leu Arg Lys

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60 65 70 395
 agc ctg aca agg aac cca agc ccc cgt ttc t
 Ser Leu Thr Arg Asn Pro Ser Pro Arg Phe
 75 80

<210> 1493
 <211> 503
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 137..502

<400> 1493
 tagggccgcc attttgactg agcaacccta gtgacaggag ccgaagcagc agcgcagggt 60
 gtccccggtt cccctcccc ttcccttctc cggttgcctt cccgggcccc ttacactcca 120
 cagtcccggt cccgcc atg tcc cag aaa caa gaa gaa gag aac cct gcg gag 172
 Met Ser Gln Lys Gln Glu Glu Glu Asn Pro Ala Glu
 1 5 10
 gag acc ggc gag gag aag cag gac acg cag gag aaa gaa ggt att ctg 220
 Glu Thr Gly Glu Glu Lys Gln Asp Thr Gln Glu Lys Glu Gly Ile Leu
 15 20 25
 cct gag aga gct gaa gag gca aag cta aag gcc aaa tac cca agc cta 268
 Pro Glu Arg Ala Glu Glu Ala Lys Leu Lys Ala Lys Tyr Pro Ser Leu
 30 35 40
 gga caa aag cct gga ggc tcc gac ttc ctc atg aag aga ctc cag aaa 316
 Gly Gln Lys Pro Gly Gly Ser Asp Phe Leu Met Lys Arg Leu Gln Lys
 45 50 55 60
 ggg caa aag tac ttt gac tca gga gac tac aac atg gcc aaa gcc aag 364
 Gly Gln Lys Tyr Phe Asp Ser Gly Asp Tyr Asn Met Ala Lys Ala Lys
 65 70 75
 atg aag aat aag cag ctg cca agt gca gga cca gac aag aac ctg gtg 412
 Met Lys Asn Lys Gln Leu Pro Ser Ala Gly Pro Asp Lys Asn Leu Val
 80 85 90
 act ggt gat cac atc ccc amc cca cag gat ctg ccc cag aga aag tcc 460
 Thr Gly Asp His Ile Pro Xaa Pro Gln Asp Leu Pro Gln Arg Lys Ser
 95 100 105
 tcg ctc gtc amc agc aag ctt gcg ggt ggc cag ttg aat gat g 503
 Ser Leu Val Xaa Ser Lys Leu Ala Gly Gly Gln Leu Asn Asp
 110 115 120

<210> 1494
 <211> 428
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 54..428

<400> 1494

gactcccttc tcgtctcgag gcctgtggcg tctgggtccg ttggggcaga acc atg 56
Met
1
gag gaa aag cct tcg aaa gtg tcg ctc aag tct tcc gac cgc caa ggc 104
Glu Glu Lys Pro Ser Lys Val Ser Leu Lys Ser Ser Asp Arg Gln Gly
5 10 15
tcg gac gag gag agc gtg cat agc gac act cgg gac ctg tgg acc acg 152
Ser Asp Glu Glu Ser Val His Ser Asp Thr Arg Asp Leu Trp Thr Thr
20 25 30
acc acg ctg tcc cag gca cag ctg aac atg ccg ctg tcc gag gtc tgc 200
Thr Thr Leu Ser Gln Ala Gln Leu Asn Met Pro Leu Ser Glu Val Cys
35 40 45
gag ggc ttc gac gag gag ggc cgc aac att agc aag acc cgc ggg tgg 248
Glu Gly Phe Asp Glu Glu Gly Arg Asn Ile Ser Lys Thr Arg Gly Trp
50 55 60 65
cac agc ccg ggg cgg ggc tcg ttg gac gag ggg tac aag gcc agc cac 296
His Ser Pro Gly Arg Gly Ser Leu Asp Glu Gly Tyr Lys Ala Ser His
70 75 80
aag ccg gag wac tng acg agc acg cgc tgg tgg agc tgg agt tgc acc 344
Lys Pro Glu Xaa Xaa Thr Ser Thr Arg Trp Trp Ser Trp Ser Cys Thr
85 90 95
gcg gca gct cca tgg aaa tca atc tgg ggg aga agg aca ctg cat ccc 392
Ala Ala Ala Pro Trp Lys Ser Ile Trp Gly Arg Arg Thr Leu His Pro
100 105 110
aga tcg agg ccg gtc agt gtg gcc tcg cca ggc cgt 428
Arg Ser Arg Pro Val Ser Val Ala Ser Pro Gly Arg
115 120 125

<210> 1495
<211> 443
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 24..443

<400> 1495
atttccgggt cactgtagat gcg atg gcg ccg att cca aag act gtg ggg cgg 53
Met Ala Pro Ile Pro Lys Thr Val Gly Arg
1 5 10
atc aag cta gac tgc tct cta cgg ccc agc tgc cca ctg gag gtc gct 101
Ile Lys Leu Asp Cys Ser Leu Arg Pro Ser Cys Pro Leu Glu Val Ala
15 20 25
gct gya ccc aaa ctt tgc aag gaa ttc ggt cca gag gat tac ggc gaa 149
Ala Xaa Pro Lys Leu Cys Lys Glu Phe Gly Pro Glu Asp Tyr Gly Glu
30 35 40
gag gac ata gtg gat ttt ctt cga cgg ctt gtg gag agt gat ccc cag 197
Glu Asp Ile Val Asp Phe Leu Arg Arg Leu Val Glu Ser Asp Pro Gln
45 50 55
ggc ctg cac cgg atc cat gtg gat ggg agc agc ggg cgg ctg cag ctg 245
Gly Leu His Arg Ile His Val Asp Gly Ser Ser Gly Arg Leu Gln Leu
60 65 70

<400> 1497

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tttgggctgt gggcgggtgcg casggagagc ccgggaaaag cgggaa atg gcg gcg      55
                                     Met Ala Ala
                                     1
ccg agc gcg ggg tct tgg tcc acc ttc cag cac aag gag ctg atg gcc      103
Pro Ser Ala Gly Ser Trp Ser Thr Phe Gln His Lys Glu Leu Met Ala
   5                               10                               15
gct gac agg gga cgc agg ata ttg gga gtg tgt ggc atg cat cct cat      151
Ala Asp Arg Gly Arg Arg Ile Leu Gly Val Cys Gly Met His Pro His
  20                               25                               30                               35
cat cag gaa att cta aaa aag aam cga rkt ggt gct agc maa aca gct      199
His Gln Glu Ile Leu Lys Lys Xaa Arg Xaa Gly Ala Ser Xaa Thr Ala
                               40                               45                               50
gtt gtt gag cga att gtt aga aca tct tct gga gaa gga cat cat cac      247
Val Val Glu Arg Ile Val Arg Thr Ser Ser Gly Glu Gly His His His
                               55                               60                               65
ctt gga aat gag gga gct cat cca ggc caa agt      280
Leu Gly Asn Glu Gly Ala His Pro Gly Gln Ser
   70                               75

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<210> 1498

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 129..389

<400> 1498

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acacagttgt tgcaaagtgc tcagcactaa gggagccagc gcacagcaca gccaggaagg      60
cgagcgagcc cagctagccc agccagccca gccagcccgg aggtcatttg attgcccgcc      120
tcagaacg atg gat ctg cat ctc ttc gac tac tca gag cca ggg aac ttc      170
      Met Asp Leu His Leu Phe Asp Tyr Ser Glu Pro Gly Asn Phe
      1               5               10
tcg gac atc agc tgg cca tgc aac agc agc gac tgc atc gtg gtg gac      218
Ser Asp Ile Ser Trp Pro Cys Asn Ser Ser Asp Cys Ile Val Val Asp
  15               20               25               30
acg gtg atg tgt ccc aac atg ccc aac aaa agc gtc ctg ctc tac acg      266
Thr Val Met Cys Pro Asn Met Pro Asn Lys Ser Val Leu Leu Tyr Thr
               35               40               45
ctc tcc ttc att tac att ttc atc ttc gtc atc ggc atg att gcc aac      314
Leu Ser Phe Ile Tyr Ile Phe Ile Phe Val Ile Gly Met Ile Ala Asn
   50               55               60
tcc gtg gtg gtc tgg gtg aat atc cag gcc aag acc aca ggc tat gac      362
Ser Val Val Val Trp Val Asn Ile Gln Ala Lys Thr Thr Gly Tyr Asp
   65               70               75
acg cac tgc tac atc ttg aaa cct ggc c      390
Thr His Cys Tyr Ile Leu Lys Pro Gly
   80               85

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<210> 1499

<211> 367

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 211..366

<400> 1499
atttgaatgg ggacttggat gaactttctc cttgaactat atatgtgatg gaaggagttt 60
tctaatacaca taaatagagg aagatttttaa gagtaatgat ggatttaaaa gctacttttc 120
aaaggtttta ggagaaatcg gaagcataga agagatctgg gctcattcag ctcaatcaca 180
gtgagagtta cccaaagctc agcatccgtg atg gtc tac ggg gct tcc gag gcg 234
Met Val Tyr Gly Ala Ser Glu Ala
1 5
atc ggg cag cat cag tct tca gct gct aag ccg aga agg agt cag tca 282
Ile Gly Gln His Gln Ser Ser Ala Ala Lys Pro Arg Arg Ser Gln Ser
10 15 20
gag agc ctc ggg cca gag ttc cag ggg atc tgg gag tgg ctg cca gac 330
Glu Ser Leu Gly Pro Glu Phe Gln Gly Ile Trp Glu Trp Leu Pro Asp
25 30 35 40
tgg gac act ggt ctt ctc ctt cct ttg gac tca gac t 367
Trp Asp Thr Gly Leu Leu Leu Pro Leu Asp Ser Asp
45 50

<210> 1500
<211> 584
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 277..582

<400> 1500
gtggccgctc taggcagcgg ggaggtcgcg gggttgaggg gggttgtgaa aggagagcgg 60
cctctcctct atgggtcacgg ggccggggca cgcttcccc actctgtctt gttacttccg 120
gtagcgaasc tctccctctt cctctgtctc cgcggggtct gtgctgagaa taatggcccc 180
gttggccccg gacgagtgga atgattaatg atgttttgca gcagttttct acgtctgaaa 240
ttttttatgt ctctggaacc cagaatttgc taagag atg gag gaa cct cag aaa 294
Met Glu Glu Pro Gln Lys
1 5
agc tat gtg aac aca atg gac ctt gag aga gat gaa cct ctc aaa agc 342
Ser Tyr Val Asn Thr Met Asp Leu Glu Arg Asp Glu Pro Leu Lys Ser
10 15 20
acc ggc cct cag att tct gtt agt gaa ttt tct tgc cac tgc tgc tac 390
Thr Gly Pro Gln Ile Ser Val Ser Glu Phe Ser Cys His Cys Cys Tyr
25 30 35
gac atc ctg gtt aac ccc acc acc ttg aac tgt ggg cac agc ttc tgc 438
Asp Ile Leu Val Asn Pro Thr Thr Leu Asn Cys Gly His Ser Phe Cys
40 45 50
cgt cac tgc ctt gct tta tgg gat gcc att gaa aag tta ttt cct gat 486
Arg His Cys Leu Ala Leu Trp Asp Ala Ile Glu Lys Leu Phe Pro Asp

```

55          60          65          70
gcc att aga ctg aga ttt gaa gac att cag cag aat aat gac ata gtc      534
Ala Ile Arg Leu Arg Phe Glu Asp Ile Gln Gln Asn Asn Asp Ile Val
          75          80          85
caa agt ctt gca gcc ttt cag aaa tat ggg aat gat cag att cct tta      582
Gln Ser Leu Ala Ala Phe Gln Lys Tyr Gly Asn Asp Gln Ile Pro Leu
          90          95          100
gc

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<210> 1501
 <211> 275
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 63..275

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<400> 1501
cttgttcctc aagcggccgc tgggggccc agagcaggac cggagcgcgg gccaaagctgg      60
ag atg gat gat gct gac cct gag gaa aga aac tat gac aac atg ctg      107
  Met Asp Asp Ala Asp Pro Glu Glu Arg Asn Tyr Asp Asn Met Leu
    1          5          10          15
aaa atg ctg tca gat ctg aat aag gac ttg gaa aag cta tta gaa gag      155
Lys Met Leu Ser Asp Leu Asn Lys Asp Leu Glu Lys Leu Leu Glu Glu
          20          25          30
atg gag aaa atc tca gtg cag gcg acc tgg atg gcc tat gac atg gtg      203
Met Glu Lys Ile Ser Val Gln Ala Thr Trp Met Ala Tyr Asp Met Val
          35          40          45
gtg atg cgc acc aac cct acg ctg gcc gag tcc atg cgt cgg ctg gag      251
Val Met Arg Thr Asn Pro Thr Leu Ala Glu Ser Met Arg Arg Leu Glu
          50          55          60
gat gcc ttc gtc aac tgc aag gag
Asp Ala Phe Val Asn Cys Lys Glu      275
    65          70

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<210> 1502
 <211> 423
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 210..422

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<400> 1502
gtcggccggc tccgcccggc tgccgcctag gatgaatatt atggacttca acgtgaagaa      60
gctggcgggc gacgcaggca ccttcctcag tcgcgccgtg cagttcacag aagaaaagct      120
tkggccaggc tgaraagaca gaattggatg ctacttaga gaacctcctt agcaaagctg      180
aatgtacnaa aatatggaca gaaaaaata atg aaa caa act gaa gtg tta ttg      233
          Met Lys Gln Thr Glu Val Leu Leu
            1          5

```

cag cca aat cca aat gcc agg ata gaa gaa ttt gtt tat gag aaa ctg	281
Gln Pro Asn Pro Asn Ala Arg Ile Glu Glu Phe Val Tyr Glu Lys Leu	
10 15 20	
gat aga aaa gct cca agt cgt ata aac aac cca gaa ctt ttg gga caa	329
Asp Arg Lys Ala Pro Ser Arg Ile Asn Asn Pro Glu Leu Leu Gly Gln	
25 30 35 40	
tat atg att gat gca ggg act gag ttt ggc cca gga aca gct tat ggt	377
Tyr Met Ile Asp Ala Gly Thr Glu Phe Gly Pro Gly Thr Ala Tyr Gly	
45 50 55	
aat gcc ctt att aaa tgt gga gaa acc caa aaa aga att gga aca g	423
Asn Ala Leu Ile Lys Cys Gly Glu Thr Gln Lys Arg Ile Gly Thr	
60 65 70	

<210> 1503
 <211> 257
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 84..257

<400> 1503	
agactggatt aggatgcctc gcgactaggg gtccagagac agaggcctcc agttcccagg	60
cacttcggga agaggaggct gaa atg atg cay cag att tac agc tgc agt gac	113
Met Met His Gln Ile Tyr Ser Cys Ser Asp	
1 5 10	
gag aac ata gaa gtt ttc acc acc gtg att cct tcc aag gta tcc agt	161
Glu Asn Ile Glu Val Phe Thr Thr Val Ile Pro Ser Lys Val Ser Ser	
15 20 25	
cca gcc aga aga gca aaa agc tct cag cac ctc ttg acc aag aat	209
Pro Ala Arg Arg Ala Lys Ser Ser Gln His Leu Leu Thr Lys Asn	
30 35 40	
gtg gtg atc gag tgc gac ctg tac acg cac cag ccc ctg gag ctg ctg	257
Val Val Ile Glu Ser Asp Leu Tyr Thr His Gln Pro Leu Glu Leu Leu	
45 50 55	

<210> 1504
 <211> 394
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 90..392

<400> 1504	
tctgtccgga cggaagcagg aagcgggag tagggccacg cctgcggsct gctggttgag	60
gctgtgtggg tgggggacgg gccgaggcg atg gcg gag aag ttt gac cac cta	113
Met Ala Glu Lys Phe Asp His Leu	
1 5	
gag gag cac ctg gag aag ttc gtg gag aac att cgg cag ctc ggc atc	161

Glu	Glu	His	Leu	Glu	Lys	Phe	Val	Glu	Asn	Ile	Arg	Gln	Leu	Gly	Ile		
10						15					20						
atc	gtc	agt	gac	ttc	cag	ccc	agc	agc	cag	gcc	ggg	ctc	aac	caa	aag		209
Ile	Val	Ser	Asp	Phe	Gln	Pro	Ser	Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys		
25					30					35					40		
ctg	aat	ttt	att	gtt	act	ggc	tta	cag	gat	att	gac	aag	tgc	aga	cag		257
Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu	Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln		
				45					50					55			
cag	ctt	cat	grt	att	act	gta	ccg	tta	gaa	gtt	ttt	gaa	tat	ata	gat		305
Gln	Leu	His	Xaa	Ile	Thr	Val	Pro	Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp		
			60					65					70				
caa	ggt	cga	aat	ccc	cag	ctc	tac	acc	aaa	gag	tgc	ctg	gag	agg	gct		353
Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr	Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala		
		75				80						85					
cta	gct	aaa	aat	gag	caa	gtt	aaa	ggc	aag	atc	gac	acc	at				394
Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys	Gly	Lys	Ile	Asp	Thr					
90						95					100						

<210> 1505
 <211> 282
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 28..282

<400> 1505																	
ggaaaagagg	tgggatcggt	tgctcgck	atg	tgg	agt	ggc	cgt	aag	ctg	ggc	tcc						54
			Met	Trp	Ser	Gly	Arg	Lys	Leu	Gly	Ser						
			1				5										
tcc	ggg	ggt	tgg	ttt	tta	aga	gtg	ctg	ggg	cct	gga	ggc	tgt	aat	aca		102
Ser	Gly	Gly	Trp	Phe	Leu	Arg	Val	Leu	Gly	Pro	Gly	Gly	Cys	Asn	Thr		
10				15					20					25			
aaa	gct	gcg	cgt	ccc	tta	att	tcc	tcg	gcg	gtt	tat	gtg	aag	aac	cag		150
Lys	Ala	Ala	Arg	Pro	Leu	Ile	Ser	Ser	Ala	Val	Tyr	Val	Lys	Asn	Gln		
			30					35						40			
ctc	agt	ggg	act	cta	cag	att	aaa	cca	ggg	gtt	ttc	aat	gaa	tac	aga		198
Leu	Ser	Gly	Thr	Leu	Gln	Ile	Lys	Pro	Gly	Val	Phe	Asn	Glu	Tyr	Arg		
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Thr	Ile	Trp	Phe	Lys	Ser	Tyr	Arg	Thr	Ile	Phe	Ser	Cys	Leu	Asn	Arg		
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ata	aag	agt	ttc	agg	tac	cct	tgg	gcg	aga	ctg	tac						282
Ile	Lys	Ser	Phe	Arg	Tyr	Pro	Trp	Ala	Arg	Leu	Tyr						
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ggaactggta ccattccttc tgaaattatt ccaatcaata gaaaaagagg gaatcctccc      240
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                               Met Asn Ile Asp Ala Lys Ile Leu
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aat aar ata ctg gca aac cga atc cag cag cac atc aaa aag ctt atc      400
Asn Lys Ile Leu Ala Asn Arg Ile Gln Gln His Ile Lys Lys Leu Ile
    10               15               20
cat cat gat caa gtg ggc ttc atc cct ggg atg caa ggc tgg ttc aat      448
His His Asp Gln Val Gly Phe Ile Pro Gly Met Gln Gly Trp Phe Asn
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cgaggcagca gcggctgcag ttcaacatga aaggaggctt cctccctgcc tgctaattac      180
ctgctcttcc cgatctcatc gtttctgcct ttgcaaagtg ctactgagaa gggggaagaa      240
acgtccgcca cccatcccc ttgctgcctg ggggttcaga cttgattag atg gct aac      298
                               Met Ala Asn
                               1
agg ggc ccg agc tat ggc tta agc cga gag nng cag gag aag atc gag      346
Arg Gly Pro Ser Tyr Gly Leu Ser Arg Glu Xaa Gln Glu Lys Ile Glu
    5               10               15
cag aag tat gat gcg gac ctg gag aac aag ctg gtg gac tgg atc atc      394
Gln Lys Tyr Asp Ala Asp Leu Glu Asn Lys Leu Val Asp Trp Ile Ile
    20               25               30               35
ctg cag tgc gcc gag gac ata gag cac ccg ccc ccc ggc agg gcc cat      442
Leu Gln Cys Ala Glu Asp Ile Glu His Pro Pro Gly Arg Ala His
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ttt cag aaa tgg tta atg gac ggg acg gtc ctg tgc aag ctg ata aat      490
Phe Gln Lys Trp Leu Met Asp Gly Thr Val Leu Cys Lys Leu Ile Asn
                55               60               65
agt tta tac cca cca gga caa gag ccc ata ccc aag atc tca gag tca      538

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Ala	Glu	Thr	Tyr	Gly	Val	Arg	Thr	Thr	Asp	Ile	Phe	Gln	Thr	Val	Asp		
100					105					110				115			
cta	tgg	gaa	ggg	aag	gac	atg	gca	gct	gtg	cag	agg	acc	ctg	atg	gct		682
Leu	Trp	Glu	Gly	Lys	Asp	Met	Ala	Ala	Val	Gln	Arg	Thr	Leu	Met	Ala		
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Leu	Gly	Ser	Val	Ala	Val	Thr	Lys	Asp	Asp	Gly	Cys	Tyr	Arg	Gly	Glu		
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cca	tcc	tgg	ttt	cac	agg	aaa	gcc	cag	cag	aat	cgg	aga	ggc	ttt	tcc		778
Pro	Ser	Trp	Phe	His	Arg	Lys	Ala	Gln	Gln	Asn	Arg	Arg	Gly	Phe	Ser		
		150				155					160						
gag	gag	cag	ctt	cgc	cag	gga	cag	aac	gta	ata	ggc	ctg	cag	atg	ggc		826
Glu	Glu	Gln	Leu	Arg	Gln	Gly	Gln	Asn	Val	Ile	Gly	Leu	Gln	Met	Gly		
	165				170					175							
agc	aac	agg	gag	ctc	cca	ggc	ggg	cat	gac	agg	gta	cgg	gat	gcc	cag		874
Ser	Asn	Arg	Glu	Leu	Pro	Gly	Gly	His	Asp	Arg	Val	Arg	Asp	Ala	Gln		
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Ala	Asp	His	Val														

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			Met Ala Asn	Arg Gly Pro	Ser Tyr												
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ggc tta agc	cga gag gtg	cag gag aag	atc gag cag	aag tat gat	gcg												161
Gly Leu Ser	Arg Glu Val	Gln Glu Lys	Ile Glu Gln	Lys Tyr Asp	Ala												
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gac ctg gag	aac aag ctg	gtg gac tgg	atc atc ctg	cag tgc gcc	gag												209
Asp Leu Glu	Asn Lys Leu	Val Asp Trp	Ile Ile Leu	Gln Cys Ala	Glu												
	25		30		35												
gac ata gag	cac ccg ccc	ccc ggc agg	gcc cat ttt	cag aaa tgg	tta												257
Asp Ile Glu	His Pro Pro	Pro Gly Arg	Ala His Phe	Gln Lys Trp	Leu												
	45		50		55												
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Met Asp Gly	Thr Val Leu	Cys Lys Leu	Ile Asn Ser	Leu Tyr Pro	Pro												
	60		65		70												
gga caa gag	ccc ata ccc	aag atc tca	gag tca aag	atg gct ttt	aag												353

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Gln	Met	Glu	Gln	Ile	Ser	Gln	Phe	Leu	Lys	Ala	Ala	Glu	Thr	Tyr	Gly		
	90					95					100						
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Val	Arg	Thr	Thr	Asp	Ile	Phe	Gln	Thr	Val	Asp	Leu	Trp	Glu	Gly	Lys		
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Asp	Met	Ala	Ala	Val	Gln	Arg	Thr	Leu	Met	Ala	Leu	Gly	Ser	Val	Ala		
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gtc	acc	aag	gat	gat	ggc	tgc	tat	cgg	gga	gag	cca	tcc	tgg	ttt	cac		545
Val	Thr	Lys	Asp	Asp	Gly	Cys	Tyr	Arg	Gly	Glu	Pro	Ser	Trp	Phe	His		
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Arg	Lys	Ala	Gln	Gln	Asn	Arg	Arg	Gly	Phe	Ser	Glu	Glu	Gln	Leu	Arg		
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cag	gga	cag	aac	gta	ata	ggc	ctg	cag	atg	ggc	agc	aac	agg	gag	ctc		641
Gln	Gly	Gln	Asn	Val	Ile	Gly	Leu	Gln	Met	Gly	Ser	Asn	Arg	Glu	Leu		
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Ser	His	Leu	His	Ser	Arg	Leu	Gln	Asp	Leu	Leu	Lys	Gly	Gly	Val	Ile		
			10					15						20			
tat	ccg	gcc	ctt	cca	cag	ccc	aac	ttc	aaa	agc	tta	ctt	cct	tta	gct		269
Tyr	Pro	Ala	Leu	Pro	Gln	Pro	Asn	Phe	Lys	Ser	Leu	Leu	Pro	Leu	Ala		
		25				30								35			
gtc	cat	tgg	cac	cat	aca	gcc	tcc	aag	tct	ctg	act	tgt	gct	tgg	cag		317
Val	His	Trp	His	His	Thr	Ala	Ser	Lys	Ser	Leu	Thr	Cys	Ala	Trp	Gln		
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Gln	His	Glu	Asp	His	Phe	Glu	Leu	Lys	Tyr	Ala	Asn	Thr	Val	Met	Arg		
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Phe	Asp	Tyr	Val	Trp	Leu	Arg	Asp	His	Cys	Arg	Ser	Ala	Ser	Cys	Tyr		

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atg tcc aag gga cct gca gtt ggt att gat ctt ggc acc acc tac tct 167
Met Ser Lys Gly Pro Ala Val Gly Ile Asp Leu Gly Thr Thr Tyr Ser
1 5 10 15
tgt gtg ggt gtt ttc cag cac gga aaa gtc gag ata att gcc aat gat 215
Cys Val Gly Val Phe Gln His Gly Lys Val Glu Ile Ile Ala Asn Asp
20 25 30
cag gga aac cga acc act cca agc tat gtc gcc ttt acg gac act gaa 263
Gln Gly Asn Arg Thr Thr Pro Ser Tyr Val Ala Phe Thr Asp Thr Glu
35 40 45
cgg ttg atc ggt gat gcc gca aag aat caa gtt gca atg aac ccc acc 311
Arg Leu Ile Gly Asp Ala Ala Lys Asn Gln Val Ala Met Asn Pro Thr
50 55 60
aac aca gtt ttt gat gcc aaa cgt ctg att gga cgc aga ttt gat gat 359
Asn Thr Val Phe Asp Ala Lys Arg Leu Ile Gly Arg Arg Phe Asp Asp
65 70 75 80
gct gtt gtc cag tct gat atg aaa cat tgg ccc ttt atg gtg gtg aat 407
Ala Val Val Gln Ser Asp Met Lys His Trp Pro Phe Met Val Val Asn
85 90 95
gat gct ggc agg ccc aag gtc caa gta gaa tac aag gga gag acc aaa 455
Asp Ala Gly Arg Pro Lys Val Gln Val Glu Tyr Lys Gly Glu Thr Lys
100 105 110
agc ttc tat cca gag gag gtg tct 479
Ser Phe Tyr Pro Glu Glu Val Ser
115 120

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 Arg Lys Gln Gln Lys Val Trp Met Trp Asn Leu Ile Gln Glu Ser Val
 15 20 25
 tta gag cat ttc agg acc cac ccc aca gtc cgg gaa cag att cca ctt 149
 Leu Glu His Phe Arg Thr His Pro Thr Val Arg Glu Gln Ile Pro Leu
 30 35 40
 ctg gaa caa aag gtt ctc att ggg gcc ctg tcc cca gga cta gca gca 197
 Leu Glu Gln Lys Val Leu Ile Gly Ala Leu Ser Pro Gly Leu Ala Ala
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 aggtgctgca gccatagcta cgtgcgttcg ctacgaggat tgagcgtctc cacccatctt 180
 ctgtgcttca ccatctacat a atg aat ccc agt atg aag cag aaa caa gaa 231
 Met Asn Pro Ser Met Lys Gln Lys Gln Glu
 1 5 10
 gaa atc aaa gag aat ata aag aat agt tct gtc cca aga aga act ctg 279
 Glu Ile Lys Glu Asn Ile Lys Asn Ser Ser Val Pro Arg Arg Thr Leu
 15 20 25
 aag atg att cag cct tct gca tct gga tct ctt gtt gga aga gaa aat 327
 Lys Met Ile Gln Pro Ser Ala Ser Gly Ser Leu Val Gly Arg Glu Asn
 30 35 40
 gag ctg tcc gca ggc ttg tcc aaa agg aaa cat cgg aat gac cac tta 375
 Glu Leu Ser Ala Gly Leu Ser Lys Arg Lys His Arg Asn Asp His Leu
 45 50 55
 aca tct aca act tcc agc cct ggg gtt att gtc cca gaa tct agt gaa 423
 Thr Ser Thr Thr Ser Ser Pro Gly Val Ile Val Pro Glu Ser Ser Glu
 60 65 70
 aat aaa aat ctt gga gga gtc acc cag gag tca ttt gat ctt atg att 471
 Asn Lys Asn Leu Gly Gly Val Thr Gln Glu Ser Phe Asp Leu Met Ile
 75 80 85 90
 aaa gaa aat cca tcc tct cag tat tgg aag gaa gtg gca gaa aaa cgg 519
 Lys Glu Asn Pro Ser Ser Gln Tyr Trp Lys Glu Val Ala Glu Lys Arg
 95 100 105
 aga aag gcg ctg tat gaa gca ctt aag gmn aat gag aaa ctt cat aaa 567
 Arg Lys Ala Leu Tyr Glu Ala Leu Lys Xaa Asn Glu Lys Leu His Lys
 110 115 120

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 Glu Ile Glu Gln Lys Asp Asn Glu Ile Ala
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 Met Lys Gln Lys Gln Glu Glu Ile Lys Glu Asn Ile Lys Asn Ser Ser
 5 10 15 20

gtc cca aga aga act ctg aag atg att cag cct tct gca tct gga tct 152
 Val Pro Arg Arg Thr Leu Lys Met Ile Gln Pro Ser Ala Ser Gly Ser
 25 30 35

ctt gtt gga aga gaa aat gag ctg tcc gca ggc ttg tcc aaa agg aaa 200
 Leu Val Gly Arg Glu Asn Glu Leu Ser Ala Gly Leu Ser Lys Arg Lys
 40 45 50

cat cgg aat gac cac tta aca tct aca act tcc agc cct ggg gtt att 248
 His Arg Asn Asp His Leu Thr Ser Thr Thr Ser Ser Pro Gly Val Ile
 55 60 65

gtc cca gaa tct agt gaa aat aaa aat ctt gga gga gtc acc cag gag 296
 Val Pro Glu Ser Ser Glu Asn Lys Asn Leu Gly Gly Val Thr Gln Glu
 70 75 80

tca ttt gat ctt atg att aaa gaa aat cca tcc tct cag tat tgg aag 344
 Ser Phe Asp Leu Met Ile Lys Glu Asn Pro Ser Ser Gln Tyr Trp Lys
 85 90 95 100

gaa gtg gca gaa aaa cgg aga aag gcg ctg tat gaa gca ctt aag gmn 392
 Glu Val Ala Glu Lys Arg Arg Lys Ala Leu Tyr Glu Ala Leu Lys Xaa
 105 110 115

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cg 442

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 gtgggcaaga ggcggcagga agtgggtacg caggggcgca aggcgcacag cctctagacg 240
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 cggcctggtc ttctgtgctt caccatctac ata atg aat ccc agt atg aag cag 354
 Met Asn Pro Ser Met Lys Gln

1

5

aaa caa gaa gaa atc aaa gag aat ata aag aat agt tct gtc cca aga 402
 Lys Gln Glu Glu Ile Lys Glu Asn Ile Lys Asn Ser Ser Val Pro Arg
 10 15 20

aga act ctg aag atg att cag cct tct gca tct gga tct ctt gtt gga 450
 Arg Thr Leu Lys Met Ile Gln Pro Ser Ala Ser Gly Ser Leu Val Gly
 25 30 35

aga gaa aat gag ctg tcc gca ggc ttg tcc aaa agg aaa cat cgg aat 498
 Arg Glu Asn Glu Leu Ser Ala Gly Leu Ser Lys Arg Lys His Arg Asn
 40 45 50 55

gac cac tta aca tct aca act tcc agc cct ggg gtt att gtc cca gaa 546
 Asp His Leu Thr Ser Thr Thr Ser Ser Pro Gly Val Ile Val Pro Glu
 60 65 70

tct agt gaa aat aaa aat ctt gga gga gtc acc cag gag tca ttt gat 594
 Ser Ser Glu Asn Lys Asn Leu Gly Gly Val Thr Gln Glu Ser Phe Asp
 75 80 85

ctt atg att aaa gaa aat cca tcc tct cag tat tgg aag gaa gtg gca 642
 Leu Met Ile Lys Glu Asn Pro Ser Ser Gln Tyr Trp Lys Glu Val Ala
 90 95 100

gaa aaa cgg aga aag gcg ctg tat gaa gca ctt aag gmn aat gag aaa 690
 Glu Lys Arg Arg Lys Ala Leu Tyr Glu Ala Leu Lys Xaa Asn Glu Lys
 105 110 115

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 Ala Ala Phe Leu Gln Lys Arg Lys Leu Arg Leu Ser Lys Asn Xaa Arg
 15 20 25 30

cca gcc aga gyc aag gtc aca gag cac gtc cgt ggc acg cgt cca ggc 147
 Pro Ala Arg Xaa Lys Val Thr Glu His Val Arg Gly Thr Arg Pro Gly
 35 40 45

tcg tgc cac rgc agg rcc ggy ngc ttc gga cgc ggg cak ccg ggt ccc	195
Ser Cys His Xaa Arg Xaa Gly Xaa Phe Gly Arg Gly Xaa Pro Gly Pro	
50 55 60	
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Xaa Xaa Leu Thr Asp Gly Glu Thr Glu Ala Arg Pro Ala Ala Glu Ala	
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Met Ser	
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Ala Ala Glu Ala Gly Gly Val Phe His Arg Ala Arg Gly Arg Thr Leu	
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gcc gcg ttt ccc gca gaa aag gaa agc gaa tgg aaa ggc cca ttc tac	212
Ala Ala Phe Pro Ala Glu Lys Glu Ser Glu Trp Lys Gly Pro Phe Tyr	
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Phe Ile Leu Gly Ala Asp Pro Gln Phe Gly Leu Ile Lys Ala Trp Ser	
35 40 45 50	
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Thr Gly Asp Cys Asp Asn Gly Gly Asp Glu Trp Glu Gln Glu Ile Arg	
55 60 65	
cta act gag caa gcc gtc cag gcc atc aac aag ctg aac ccc aaa ccc	356
Leu Thr Glu Gln Ala Val Gln Ala Ile Asn Lys Leu Asn Pro Lys Pro	
70 75 80	
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cagggtcatt gtcgtggatt tgcacagtcg gctgggcggg gca atg gcg gaa aga      175
                                   Met Ala Glu Arg
                                   1
aaa gga aca gcc aaa gtg gac ttt ttg aag aag att gag aaa gaa atc      223
Lys Gly Thr Ala Lys Val Asp Phe Leu Lys Lys Ile Glu Lys Glu Ile
5                               10                               15                               20
caa cag aaa tgg gat act gag aga gtg ttt gag gtc aat gca tct aat      271
Gln Gln Lys Trp Asp Thr Glu Arg Val Phe Glu Val Asn Ala Ser Asn
                               25                               30                               35
tta gag aaa cag acc agc aag ggc aag tat ttt gta acc ttc cca tat      319
Leu Glu Lys Gln Thr Ser Lys Gly Lys Tyr Phe Val Thr Phe Pro Tyr
                               40                               45                               50
cca tat atg aat gga cgc ctt cat ttg gga cac acg ttt tct tta tcc      367
Pro Tyr Met Asn Gly Arg Leu His Leu Gly His Thr Phe Ser Leu Ser
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aaa tg
Lys
                                   372

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<222> 87..464

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cgcttgggct ccctgttcgt tcccac atg cag ggc agc aca agg aga atg ggc      113
                                   Met Gln Gly Ser Thr Arg Arg Met Gly
                                   1                               5
gtc atg act gat gtc cac cgg cgc ttc ctc cag ttg ctg atg acc cat      161
Val Met Thr Asp Val His Arg Arg Phe Leu Gln Leu Leu Met Thr His
10                               15                               20                               25
ggc gtg cta gag gaa tgg gac gtg aag cgc ttg cag acg cac tgc tac      209
Gly Val Leu Glu Glu Trp Asp Val Lys Arg Leu Gln Thr His Cys Tyr
                               30                               35                               40
aag gtc cat gac cgc aat gcc acc gta gat aag ttg gag gac ttc atc      257
Lys Val His Asp Arg Asn Ala Thr Val Asp Lys Leu Glu Asp Phe Ile
                               45                               50                               55
aac aac att aac agt gtc ttg gag tcc ttg tat att gag ata aag aga      305
Asn Asn Ile Asn Ser Val Leu Glu Ser Leu Tyr Ile Glu Ile Lys Arg
                               60                               65                               70
gga gtc acg gaa gat gat ggg aga ccc att tat gcg ttg gtg aat ctt      353
Gly Val Thr Glu Asp Asp Gly Arg Pro Ile Tyr Ala Leu Val Asn Leu
75                               80                               85
gct aca act tca att tcc aaa atg gct acg gat ttt gca gag aat gaa      401
Ala Thr Thr Ser Ile Ser Lys Met Ala Thr Asp Phe Ala Glu Asn Glu

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90	95	100	105	
ctg gat ttg ttt aga aag gct ctg gaa ctg att att gac tca gaa acc				449
Leu Asp Leu Phe Arg Lys Ala Leu Glu Leu Ile Ile Asp Ser Glu Thr				
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ggc ttt gcg tct tcc a				465
Gly Phe Ala Ser Ser				
	125			

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<220>
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 <222> 188..439

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agcaccaaata aaccaaggaa aaggaagtga gttaggacgt actcgtcttg gtgagagcgt	120
gagtgtgag atttgggagt ctgcgctagg cccgcttgga gttctgagcc gatggaagag	180
ttcactc atg ttt gca ccc gcg gtg atg cgt gct ttt cgc aag aac aag	229
Met Phe Ala Pro Ala Val Met Arg Ala Phe Arg Lys Asn Lys	
1 5 10	
act ctc ggc tat gga gtc ccc atg ttg atg gat cct gag ctt gaa aaa	277
Thr Leu Gly Tyr Gly Val Pro Met Leu Met Asp Pro Glu Leu Glu Lys	
15 20 25 30	
aaa ctg aaa gag aat aaa ata tct tta gag tcg gaa tat gag aaa atc	325
Lys Leu Lys Glu Asn Lys Ile Ser Leu Glu Ser Glu Tyr Glu Lys Ile	
35 40 45	
aaa gac tcc aag ttt gat gac tgg aag aat att cga gga ccc agg cct	373
Lys Asp Ser Lys Phe Asp Asp Trp Lys Asn Ile Arg Gly Pro Arg Pro	
50 55 60	
tgg gaa gat cct gac ctc ctc caa gga aga atc cag aaa gcc tta aga	421
Trp Glu Asp Pro Asp Leu Leu Gln Gly Arg Ile Gln Lys Ala Leu Arg	
65 70 75	
cta aga caa ctt gac tct gc	441
Leu Arg Gln Leu Asp Ser	
80	

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<220>
 <221> CDS
 <222> 21..314

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Met Gly Gly Cys Pro Val Arg Lys Arg Arg Arg	

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aat	ggc	agt	aaa	gag	ggc	aac	cat	cat	tcc	acc	cag	ccc	aaa	agg	aat	101
Asn	Gly	Ser	Lys	Glu	Gly	Asn	His	His	Ser	Thr	Gln	Pro	Lys	Arg	Asn	
			15						20					25		
aag	aga	aac	cct	atc	ttt	cag	gat	tct	caa	gat	aca	gag	gta	ttt	tca	149
Lys	Arg	Asn	Pro	Ile	Phe	Gln	Asp	Ser	Gln	Asp	Thr	Glu	Val	Phe	Ser	
			30						35				40			
tgg	agt	gat	aat	gaa	agg	agc	agc	agc	cgc	att	aat	atc	cca	gag	aga	197
Trp	Ser	Asp	Asn	Glu	Arg	Ser	Ser	Ser	Arg	Ile	Asn	Ile	Pro	Glu	Arg	
			45						50				55			
gca	agt	gga	cca	gaa	ggc	aac	tta	aac	cag	att	gtt	act	gaa	ccc	gat	245
Ala	Ser	Gly	Pro	Glu	Gly	Asn	Leu	Asn	Gln	Ile	Val	Thr	Glu	Pro	Asp	
			60						65				70		75	
gca	aac	ttt	ccc	cag	ttc	ttg	cat	gag	ggg	tat	gta	cca	tgc	caa	ggg	293
Ala	Asn	Phe	Pro	Gln	Phe	Leu	His	Glu	Gly	Tyr	Val	Pro	Cys	Gln	Gly	
				80					85				90			
ctt	tac	tcc	cat	atc	aac	cag										314
Leu	Tyr	Ser	His	Ile	Asn	Gln										
				95												

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tcgccccacg ctaggaaatt ttttttttat ttccaacctt tgttacatag cactgaggct	120
acaagatcat agttcattta aagcccccat ccttgcaagg tgggtgctttc taccaat	177
atg aat ctt ttc aac ctg gac cgt ttt cgc ttt gag aaa agg aat aag	225
Met Asn Leu Phe Asn Leu Asp Arg Phe Arg Phe Glu Lys Arg Asn Lys	
1 5 10 15	
att gag gaa gcg ccc gaa gca acc cct caa cct tcc cag cct ggc cct	273
Ile Glu Glu Ala Pro Glu Ala Thr Pro Gln Pro Ser Gln Pro Gly Pro	
20 25 30	
tct tca cca att tct ctt agt gct gaa gag gag aat gct gaa ggg gam	321
Ser Ser Pro Ile Ser Leu Ser Ala Glu Glu Glu Asn Ala Glu Gly Xaa	
35 40 45	
gtt agc agg gca aac act cct gat tca gat ata act gaa aaa aca gaa	369
Val Ser Arg Ala Asn Thr Pro Asp Ser Asp Ile Thr Glu Lys Thr Glu	
50 55 60	
gat tct agt gtt cca gaa act cca gat amt gaa ag	404
Asp Ser Ser Val Pro Glu Thr Pro Asp Xaa Glu	
65 70 75	

<210> 1522
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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 12..419

<400> 1522

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atg tgg aat ggg cgt atc agg ggc atc cat cgc ctg ggt gcg gca gtg      98
Met Trp Asn Gly Arg Ile Arg Gly Ile His Arg Leu Gly Ala Ala Val
  15             20             25
gcc cca gag ggc agt cag aag aag aaa agg aca ata ctc cag ttc ctg      146
Ala Pro Glu Gly Ser Gln Lys Lys Lys Arg Thr Ile Leu Gln Phe Leu
  30             35             40             45
acc aac tat ttc tac gat gtg gag gct ctg agg gat tac ttg ctc caa      194
Thr Asn Tyr Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln
              50             55             60
agg gag atg tac aag gtg cat gag aaa aat cgg ttt cga gac aag gag      242
Arg Glu Met Tyr Lys Val His Glu Lys Asn Arg Phe Arg Asp Lys Glu
              65             70             75
tgg atc agg cca gat aag tat ggc cat ttc tct cag gag ttc tgg aat      290
Trp Ile Arg Pro Asp Lys Tyr Gly His Phe Ser Gln Glu Phe Trp Asn
              80             85             90
ttc tgt gaa gtg cct gtc gaa gct gtg gat gcc ggt gac tgt gac atc      338
Phe Cys Glu Val Pro Val Glu Ala Val Asp Ala Gly Asp Cys Asp Ile
              95             100             105
aac tac gag ggc ctg gat aac ctc ctc cgc ctg aag gag ctc cag tcc      386
Asn Tyr Glu Gly Leu Asp Asn Leu Leu Arg Leu Lys Glu Leu Gln Ser
  110             115             120             125
ttg tcg ctg cag cgc tgc tcc cac gtg gac gac tg                        421
Leu Ser Leu Gln Arg Cys Ser His Val Asp Asp
              130             135

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<210> 1523
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 <213> Homo sapiens

<220>
 <221> CDS
 <222> 165..461

<400> 1523

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ccgctaccac tgtccggccc ggaggggaac tgttttctcc ggaagtgaca acacgctgac      120
taggaaaagg aggaggcggg gcagtggggc cttcggcggc gact atg gaa gga gcc      176
              Met Glu Gly Ala
                1
ggc tac agg gtg gtg ttt gag aag ggc gga gtg tac ctg cac acc agc      224
Gly Tyr Arg Val Val Phe Glu Lys Gly Gly Val Tyr Leu His Thr Ser
  5             10             15             20

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gct aag aag tat cag gac cga gac tct ctc atc gct ggt gtc atc cgt	272
Ala Lys Lys Tyr Gln Asp Arg Asp Ser Leu Ile Ala Gly Val Ile Arg	
25 30 35	
gtc gtg gaa aag gac aat gac gtc ctc ctg cac tgg gct cct gta gag	320
Val Val Glu Lys Asp Asn Asp Val Leu Leu His Trp Ala Pro Val Glu	
40 45 50	
gag gct gga gat tcc acc caa atc ctc ttc tcc aag aag gac tcc agt	368
Glu Ala Gly Asp Ser Thr Gln Ile Leu Phe Ser Lys Lys Asp Ser Ser	
55 60 65	
ggg ggt gac tca tgt gct tct gag gag gaa cca acc ttt gac ccc ggc	416
Gly Gly Asp Ser Cys Ala Ser Glu Glu Glu Pro Thr Phe Asp Pro Gly	
70 75 80	
tat gaa cct gan rgg gct gtc atc agc act gtg cgg cca cag mns	461
Tyr Glu Pro Xaa Xaa Ala Val Ile Ser Thr Val Arg Pro Gln Xaa	
85 90 95	

<210> 1524
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 <212> DNA
 <213> Homo sapiens

<220>
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<400> 1524	
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gttcacacctg tgctgtctcc cccacctacc agtcatcttc ttgtgagccc tgggcttagg	120
agtcacc atg gca act gaa gag ttc atc atc cgc atc ccc cca tac cac	169
Met Ala Thr Glu Glu Phe Ile Ile Arg Ile Pro Pro Tyr His	
1 5 10	
tat atc cat gtg ctg gac cag aac agc aac gtg tcc cgt gtg gag gtc	217
Tyr Ile His Val Leu Asp Gln Asn Ser Asn Val Ser Arg Val Glu Val	
15 20 25 30	
ggg cca aag acc tac atc cgg cag gac aat gag agg gta ctg ttt gcc	265
Gly Pro Lys Thr Tyr Ile Arg Gln Asp Asn Glu Arg Val Leu Phe Ala	
35 40 45	
ccc atg cgc atg gtg acc gtc ccc c	290
Pro Met Arg Met Val Thr Val Pro	
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<210> 1525
 <211> 510
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 223..510

<400> 1525	
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 gggctgggaa ggtggagtga ggacgcagag acctagagcc agggagatga gtggcaacag 180
 gaggcagccc agccgtaggg ccagaccgg gaaaaggaga ag atg aag gaa gcc 234
 Met Lys Glu Ala

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aag gat gcc cgc tat acc aat ggg cac ctc ttc acc acc att tca gtt 282
 Lys Asp Ala Arg Tyr Thr Asn Gly His Leu Phe Thr Thr Ile Ser Val
 5 10 15 20

tca ggc atg acc atg tgc tat gcc tgt rac aag agc atc aca gcc aag 330
 Ser Gly Met Thr Met Cys Tyr Ala Cys Xaa Lys Ser Ile Thr Ala Lys
 25 30 35

gaa gcc ctc atc tgc cca acc tgc aat gtg act atc cac aac cgc tgt 378
 Glu Ala Leu Ile Cys Pro Thr Cys Asn Val Thr Ile His Asn Arg Cys
 40 45 50

aaa gac acc ctc gcc aac tgt acc aag gtc aag cag aag caa cag aaa 426
 Lys Asp Thr Leu Ala Asn Cys Thr Lys Val Lys Gln Lys Gln Gln Lys
 55 60 65

gcg gcc ctg ctg aag aac aac acc gcc ttg cag tcc gtt tct ctt cga 474
 Ala Ala Leu Leu Lys Asn Asn Thr Ala Leu Gln Ser Val Ser Leu Arg
 70 75 80

agt aag aca acc atc cgg gag cgg cca agc tcg gcc 510
 Ser Lys Thr Thr Ile Arg Glu Arg Pro Ser Ser Ala
 85 90 95

<210> 1526

<211> 332

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 135..332

<400> 1526

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 gcagccagct ggaaggacat tcaggtaccc gggtaggctc ctccctgcga cagaccttca 120
 gcttcctctc gggc atg acc gga aag gcc aag acc cgg gaa aag gag aag 170

Met Thr Gly Lys Ala Lys Thr Arg Glu Lys Glu Lys

1

5

10

atg aag gaa gcc aag gat gcc cgc tat acc aat ggg cac ctc ttc acc 218
 Met Lys Glu Ala Lys Asp Ala Arg Tyr Thr Asn Gly His Leu Phe Thr
 15 20 25

acc att tca gtt tca ggc atg acc atg tgc tat gcc tgt aac aag agc 266
 Thr Ile Ser Val Ser Gly Met Thr Met Cys Tyr Ala Cys Asn Lys Ser
 30 35 40

atc aca gcc aag gaa gcc ctc atc tgc cca acc tgc aat gtg act atc 314
 Ile Thr Ala Lys Glu Ala Leu Ile Cys Pro Thr Cys Asn Val Thr Ile
 45 50 55 60

cac aac cgc tgt aaa gac 332
 His Asn Arg Cys Lys Asp
 65

<210> 1527

<211> 457
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 64..456

<400> 1527
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 agc atg ggg ccc ctg ccg cgc acc gtg gag ctc ttc tat gac gtg ctg 108
 Met Gly Pro Leu Pro Arg Thr Val Glu Leu Phe Tyr Asp Val Leu
 1 5 10 15
 tcc ccc tac tcc tgg ctg ggc ttc gag atc ctg tgc cgg tat cag aat 156
 Ser Pro Tyr Ser Trp Leu Gly Phe Glu Ile Leu Cys Arg Tyr Gln Asn
 20 25 30
 atc tgg aac atc aac ctg cag ttg cgg ccc agc ctc ata aca ggg atc 204
 Ile Trp Asn Ile Asn Leu Gln Leu Arg Pro Ser Leu Ile Thr Gly Ile
 35 40 45
 atg aaa gac agt gga aac aag cct cca ggt ctg ctt ccc cgc aaa gga 252
 Met Lys Asp Ser Gly Asn Lys Pro Pro Gly Leu Leu Pro Arg Lys Gly
 50 55 60
 cta tac atg gca aat gac tta aag ctc ctg aga cac cat ctc cag att 300
 Leu Tyr Met Ala Asn Asp Leu Lys Leu Leu Arg His His Leu Gln Ile
 65 70 75
 ccc atc cac ttc ccc aag gat ttc ttg tct gtg atg ctt gaa aaa gga 348
 Pro Ile His Phe Pro Lys Asp Phe Leu Ser Val Met Leu Glu Lys Gly
 80 85 90 95
 agt ttg tct gcc atg cgt ttc ctc acc gcc gtg aac ttg gag cat cca 396
 Ser Leu Ser Ala Met Arg Phe Leu Thr Ala Val Asn Leu Glu His Pro
 100 105 110
 gag atg ctg gag aaa gcg tcc cgg gag ctg tgg atg cgc gtc tgg tca 444
 Glu Met Leu Glu Lys Ala Ser Arg Glu Leu Trp Met Arg Val Trp Ser
 115 120 125
 agg aat gaa gac a 457
 Arg Asn Glu Asp
 130

<210> 1528
 <211> 402
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 220..402

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 gttcccgtct ggataccagc ttccttcagc agcgcaggcg gtggctccctg aggcccgtag 120
 aaggagtcaa acttgcgga attttgcaga agtcattgta ttcaaagaag aataagcaag 180
 aaagaaaaga aggaaggaag agaggtagac agatacaag atg aaa tcc tgt caa 234

	Met	Lys	Ser	Cys	Gln	
	1			5		
aaa atg gaa gga aaa cca gaa aat gag agt gar cca aag cat gag gaa						282
Lys Met Glu Gly Lys Pro Glu Asn Glu Ser Glu Pro Lys His Glu Glu						
	10		15		20	
gag cca aag cct gag gaa aag cca gaa gag gag gag aag cta gag gag						330
Glu Pro Lys Pro Glu Glu Lys Pro Glu Glu Glu Glu Lys Leu Glu Glu						
	25		30		35	
gag gcc aaa gca aaa gga act ttt aga gaa agg ctg att caa tct ctc						378
Glu Ala Lys Ala Lys Gly Thr Phe Arg Glu Arg Leu Ile Gln Ser Leu						
	40		45		50	
cag gag ttt aaa gaa gat atr mwc						402
Gln Glu Phe Lys Glu Asp Xaa Xaa						
	55		60			

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 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 199..396

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tccccagcac caccatcaag gcctcgaggc tcccagctcc ctctacagcc tgtggactga	180
cttaggggaat cccgaacg atg aca gaa aag gag gtg ctg gag tcc cct aag	231
	Met Thr Glu Lys Glu Val Leu Glu Ser Pro Lys
	1 5 10
ccc tcc ttc cca gca gag act cgg caa agt ggg cgg cta aag cag tta	279
Pro Ser Phe Pro Ala Glu Thr Arg Gln Ser Gly Arg Leu Lys Gln Leu	
	15 20 25
ctc agg aag ggt tct aca ggg aca aag gag atg gaa ctt ccc cca gag	327
Leu Arg Lys Gly Ser Thr Gly Thr Lys Glu Met Glu Leu Pro Pro Glu	
	30 35 40
ccc cag gcc aat ggg gag gca gtg gga gct ggg ggt ggg ccc atc tac	375
Pro Gln Ala Asn Gly Glu Ala Val Gly Ala Gly Gly Gly Pro Ile Tyr	
	45 50 55
tac atc tat gag gaa gag gaa	396
Tyr Ile Tyr Glu Glu Glu Glu	
	60 65

<210> 1530
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 97..378

<400> 1530
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 aggctagaac cccgaacgtg gtcggttgga gmaaat atg tcc ctc cgg agg cac 114
 Met Ser Leu Arg Arg His
 1 5
 att ggg aac cct gag tat ctg atg aaa agg ata cca cag aac cca aga 162
 Ile Gly Asn Pro Glu Tyr Leu Met Lys Arg Ile Pro Gln Asn Pro Arg
 10 15 20
 tac cag cat atc aaa tca aga ctg gac act ggt aac agt atg act aaa 210
 Tyr Gln His Ile Lys Ser Arg Leu Asp Thr Gly Asn Ser Met Thr Lys
 25 30 35
 tat act gag aag ctc gaa gag att aag aaa aat tat aga tac aaa aaa 258
 Tyr Thr Glu Lys Leu Glu Glu Ile Lys Lys Asn Tyr Arg Tyr Lys Lys
 40 45 50
 gat gag ctt ttc aag aga cta aaa gtt aca act ttt gcc cag ctg atc 306
 Asp Glu Leu Phe Lys Arg Leu Lys Val Thr Thr Phe Ala Gln Leu Ile
 55 60 65 70
 atc caa gtt gct tcc ctc tct gat caa aca ctg gaa gtg aca gct gag 354
 Ile Gln Val Ala Ser Leu Ser Asp Gln Thr Leu Glu Val Thr Ala Glu
 75 80 85
 gag att caa agg ctg gaa gac aat g 379
 Glu Ile Gln Arg Leu Glu Asp Asn
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<210> 1531
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 52..417

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 Met Cys
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 Phe Ser Arg Ala Asp Ala Ala Asp Asn Tyr Pro Phe Gly Thr Cys Gln
 5 10 15
 cag agg aaa ctt ttt cct cac ttc cat ccc ccg aat ttg att ggg aac 153
 Gln Arg Lys Leu Phe Pro His Phe His Pro Pro Asn Leu Ile Gly Asn
 20 25 30
 aag ttt gtc cct ctt agg gga tca ccc cac aga ggg cct ggg tgt tat 201
 Lys Phe Val Pro Leu Arg Gly Ser Pro His Arg Gly Pro Gly Cys Tyr
 35 40 45 50
 ttt tca gat gga tat ggc ttg gca tac gac tta tct aag atc cca acc 249
 Phe Ser Asp Gly Tyr Gly Leu Ala Tyr Asp Leu Ser Lys Ile Pro Thr
 55 60 65
 agt ata aaa gga tat act ttg gga gcc aga aca gct gtg agg ttt aag 297
 Ser Ile Lys Gly Tyr Thr Leu Gly Ala Arg Thr Ala Val Arg Phe Lys
 70 75 80

cca ata cag aag gaa atg aca cct cat gca ggc agg tac cag aac gta 345
 Pro Ile Gln Lys Glu Met Thr Pro His Ala Gly Arg Tyr Gln Asn Val
 85 90 95
 agt cct cag cag gaa maa cac aaa caa aat ttt gct cca ttt aat gtc 393
 Ser Pro Gln Gln Glu Xaa His Lys Gln Asn Phe Ala Pro Phe Asn Val
 100 105 110
 ttg gtg cct cga ttt aag aac tac 417
 Leu Val Pro Arg Phe Lys Asn Tyr
 115 120

<210> 1532
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 290..475

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 ttgaacagag actgtctcgc tctgtcacc aggctagagt gcagtgggtgc tctcgtaact 180
 cactggagcc ctgatctagg ctcaaaccat cctcccacct cagcctccca agtagctggg 240
 actaagggtt cttcacatat aaaaatctat tgtaaaaata cggaaaaga atg gca gcg 298
 Met Ala Ala
 1
 gaa acg cag aca ctg aac tnt ggg cct gaa tgg ctc cga gct ctg tcc 346
 Glu Thr Gln Thr Leu Asn Xaa Gly Pro Glu Trp Leu Arg Ala Leu Ser
 5 10 15
 agt ggt ggg agt att aca tcc cct cct ctt tct cca gca ttg ccg aag 394
 Ser Gly Gly Ser Ile Thr Ser Pro Pro Leu Ser Pro Ala Leu Pro Lys
 20 25 30 35
 tat aaa tta gca gat tat cgt tac ggc aga gaa gaa atg tta gca ctt 442
 Tyr Lys Leu Ala Asp Tyr Arg Tyr Gly Arg Glu Glu Met Leu Ala Leu
 40 45 50
 ttc ctt aaa gac aac aag ata cct tca gac ctt ct 477
 Phe Leu Lys Asp Asn Lys Ile Pro Ser Asp Leu
 55 60

<210> 1533
 <211> 469
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 90..467

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 gtgctgctcc tgaacttggc ctctgagcc atg gct tcc cat aga cac tca ggt 113

004220"666E"560

	Met	Ala	Ser	His	Arg	His	Ser	Gly	
ccc tcc agc tac aag gtg ggc acc atg gcg gag aag ttt gac tgc cac	1				5				161
Pro Ser Ser Tyr Lys Val Gly Thr Met Ala Glu Lys Phe Asp Cys His									
10 15 20									
tac tgc agg gat ccc ttg cag ggg aag aag tat gtg caa aag gat ggc									209
Tyr Cys Arg Asp Pro Leu Gln Gly Lys Lys Tyr Val Gln Lys Asp Gly									
25 30 35 40									
cac cac tgc tgc ctg aaa tgc ttt gac aag ttc tgt gcc aac acc tgt									257
His His Cys Cys Leu Lys Cys Phe Asp Lys Phe Cys Ala Asn Thr Cys									
45 50 55									
gtg gaa tgc cgc aag ccc atc ggt gcg gac tcc aag gag gtg cac tat									305
Val Glu Cys Arg Lys Pro Ile Gly Ala Asp Ser Lys Glu Val His Tyr									
60 65 70									
aag aac cgc ttc tgg cat gac acc tgc ttc cgc tgt gcc aag tgc ctt									353
Lys Asn Arg Phe Trp His Asp Thr Cys Phe Arg Cys Ala Lys Cys Leu									
75 80 85									
cac ccc ttg gcc aat gag acc ttt gtg gcc aag gac aac aag atc ctg									401
His Pro Leu Ala Asn Glu Thr Phe Val Ala Lys Asp Asn Lys Ile Leu									
90 95 100									
tgc aac aag tgc acc act cgg gag gac tcc ccc aag tgc aag ggg tgc									449
Cys Asn Lys Cys Thr Thr Arg Glu Asp Ser Pro Lys Cys Lys Gly Cys									
105 110 115 120									
ttc aag gcc att gtg aca gg									469
Phe Lys Ala Ile Val Thr									
125									

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<220>
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 <222> 90..401

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gtgctgctcc tgaacttggt ctctgagcc atg gct tcc cat aga cac tca ggt	113
Met Ala Ser His Arg His Ser Gly	
1 5	
ccc tcc agc tac aag gtg ggc acc atg gcg gag aag ttt gac tcn cca	161
Pro Ser Ser Tyr Lys Val Gly Thr Met Ala Glu Lys Phe Asp Xaa Pro	
10 15 20	
cta ctg cag gga tcc ctt gca ggg gaa gaa gta tgt gca aaa gga tgg	209
Leu Leu Gln Gly Ser Leu Ala Gly Glu Glu Val Cys Ala Lys Gly Trp	
25 30 35 40	
cca cca ctg caa gca ttg cgt gaa gtg caa caa ggc cay nac atc tgg	257
Pro Pro Leu Gln Ala Leu Arg Glu Val Gln Gln Gly His Xaa Ile Trp	
45 50 55	
agg aat crc tta cca gga tca gcc ctg gca tgc cga ttg ctt tgt gtg	305
Arg Asn Xaa Leu Pro Gly Ser Ala Leu Ala Cys Arg Leu Leu Cys Val	
60 65 70	

tgt tac ctg ata aga agc tgg ctg ggc agc gtt tca ccg ctg tgg agg	353
Cys Tyr Leu Ile Arg Ser Trp Leu Gly Ser Val Ser Pro Leu Trp Arg	
75 80 85	
acc agt att act gcg tgg att gct aca aga act ttg tgg cca nga agt	401
Thr Ser Ile Thr Ala Trp Ile Ala Thr Arg Thr Leu Trp Pro Xaa Ser	
90 95 100	

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<220>
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 <222> 192..410

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ttccagcatt tccactttcg tcaggtactg gagagggctg ccggccggat gccagggcag	120
aggggcaggg cggacggcta ggagttcaag aaacatcctg gtctgagga aaggctgcag	180
cctgcaccgc c atg aat aag ctt ttc agc ttc tgg aag agg aag aat gag	230
Met Asn Lys Leu Phe Ser Phe Trp Lys Arg Lys Asn Glu	
1 5 10	
acc cgc agc cag ggc tac aac ctt cga gaa aag gat tta aag aaa ctt	278
Thr Arg Ser Gln Gly Tyr Asn Leu Arg Glu Lys Asp Leu Lys Lys Leu	
15 20 25	
cac aga gct gct tca gtc ggg gat ttg aag aag ctg aag gaa tac ctt	326
His Arg Ala Ala Ser Val Gly Asp Leu Lys Lys Leu Lys Glu Tyr Leu	
30 35 40 45	
cag atc aag aaa tat gat gta aat atg cag gac aaa aaa tac agt gtt	374
Gln Ile Lys Lys Tyr Asp Val Asn Met Gln Asp Lys Lys Tyr Ser Val	
50 55 60	
gtc caa tct tct aga tgg ctt tta tcc tac acc act c	411
Val Gln Ser Ser Arg Trp Leu Leu Ser Tyr Thr Thr	
65 70	

<210> 1536
 <211> 466
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 <213> Homo sapiens

<220>
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gggcccgaac ttttgtcgat aggaacgggt ttgcacagtt gagtggtgtc ggccggcgtg	120
aaggagacta gggggccatc ctcttccttt cgccgtcgcc gccgcggagg agtcgagccg	180
agctgatttg atcgaggagc gcggttaccg gacgggctgg gtctatggtc gctccgcggg	240
ccgctccgcc ggctggtgct tttttatcag ggcaagctgt gttcc atg gca ggg aac	297
Met Ala Gly Asn	

1	ttt tgg cag agc tcc cac tat ttg caa tgg att ttg gat aaa caa gat	345
	Phe Trp Gln Ser Ser His Tyr Leu Gln Trp Ile Leu Asp Lys Gln Asp	
5	10	15
20	ctg ttg aag gag cgc caa aag gat tta aag ttt ctc tca gag gaa gaa	393
	Leu Leu Lys Glu Arg Gln Lys Asp Leu Lys Phe Leu Ser Glu Glu Glu	
25	30	35
40	tat tgg aag tta caa ata ttt ttt aca aat gtt atc caa gca tta ggt	441
	Tyr Trp Lys Leu Gln Ile Phe Phe Thr Asn Val Ile Gln Ala Leu Gly	
45	50	
55	gaa cat ctt aaa tta aga caa caa g	466
	Glu His Leu Lys Leu Arg Gln Gln	
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<210> 1537
 <211> 376
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 110..376

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	cctaggtggc agacagggggg cccggggccgc tgcgtgttgt ccaccaag atg gag ttc	118
	Met Glu Phe	
	1	
	ctc ctg ggg aac ccg ttc agc aca cca gtg ggg cag tgc ctc gaa aag	166
	Leu Leu Gly Asn Pro Phe Ser Thr Pro Val Gly Gln Cys Leu Glu Lys	
5	10	15
20	gca aca gat ggc tcc ctg caa agt gag gat tgg acg ttg aat atg gag	214
	Ala Thr Asp Gly Ser Leu Gln Ser Glu Asp Trp Thr Leu Asn Met Glu	
25	30	35
40	atc tgt gac atc atc aat gag acg gag gaa ggg cca aag gat gcc att	262
	Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys Asp Ala Ile	
45	50	
55	cga gcc ctg aag aag cgg ctc aac ggg aac cgg aac tac aga gag gtg	310
	Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr Arg Glu Val	
60	65	
70	atg ctg gca tta aca gtg ctg gag aca tgt gtg arg aac tgt ggc cac	358
	Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Xaa Asn Cys Gly His	
75	80	
85	cgc ttc cac atc ctt gtg	376
	Arg Phe His Ile Leu Val	

<210> 1538
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 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 356..592

<400> 1538

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cagcaaagag	aggagagacc	ccagagtcag	aaggagttag	aaccctgacc	cctaattcca	120
ctgcatccag	ccaataggag	cccagccacc	atggcggast	gcaggagggtg	cagatcacag	180
aggagaagcc	actggttgcca	ggacagacgc	ctgaggcggc	caaggagggt	gagttagctg	240
cccgaatcct	cctggaccag	ggacagactc	actctgtgga	gacaccatac	ggctctgtca	300
ctttcactgt	mtggcacccc	caaaccctaaa	cgcccagcga	tccttaccta	ccacg atg	358
					Met	
					1	
tgg gac tca act ata aat ctt gct tcc agc cac tgt ttc agt tcg agg	406					
Trp Asp Ser Thr Ile Asn Leu Ala Ser Ser His Cys Phe Ser Ser Arg						
5 10 15						
aca tgc agg aaa tca ttc aga ctt tgt gcg ggt tca tgt gga tgc ccc	454					
Thr Cys Arg Lys Ser Phe Arg Leu Cys Ala Gly Ser Cys Gly Cys Pro						
20 25 30						
tgg aat gga aga ggg agc cct gtg ttc cct ttg gga tat cag tac cca	502					
Trp Asn Gly Arg Gly Ser Pro Val Phe Pro Leu Gly Tyr Gln Tyr Pro						
35 40 45						
tct ctg gac cag ctt gca gac atg atc cct tgc gtc ctg cag tac cta	550					
Ser Leu Asp Gln Leu Ala Asp Met Ile Pro Cys Val Leu Gln Tyr Leu						
50 55 60 65						
aat ttc tct aca ata att gga gtg gtg ttg gag ctg gag cct	592					
Asn Phe Ser Thr Ile Ile Gly Val Val Leu Glu Leu Glu Pro						
70 75						

<210> 1539
<211> 391
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 114..389

<400> 1539

aaaaggcaag	tgaaggtgga	agcggccgcg	gcggcagcag	accccagagt	cagaaggagt	60
gagaaccctg	accctaate	ccactgcate	cagccaatag	gagcccagcc	acc atg	116
					Met	
					1	
gcg gas tgc agg agg tgc aga tca cag agg aga agc cac tgt tgc cag	164					
Ala Xaa Cys Arg Arg Cys Arg Ser Gln Arg Arg Ser His Cys Cys Gln						
5 10 15						
gac aga cgc ctg agg cgg cca aga ctc act ctg tgg aga cac cat acg	212					
Asp Arg Arg Leu Arg Arg Pro Arg Leu Thr Leu Trp Arg His His Thr						
20 25 30						
gct ctg tca ctt tca ctg tct atg gca ccc cca aac cca aac gcc cag	260					
Ala Leu Ser Leu Ser Leu Ser Met Ala Pro Pro Asn Pro Asn Ala Gln						
35 40 45						
cga tcc tta cct acc acg atg tgg gac tca act ata aat ctt gct tcc	308					

Arg Ser Leu Pro Thr Thr Met Trp Asp Ser Thr Ile Asn Leu Ala Ser
 50 55 60 65
 agc cac tgt ttc agt tgc agg aca tgc agg aaa tca ttc aga act ttg 356
 Ser His Cys Phe Ser Ser Arg Thr Cys Arg Lys Ser Phe Arg Thr Leu
 70 75 80
 tgc ggg ttc aat gtg gat gcc cct gga amt gga ag 391
 Cys Gly Phe Asn Val Asp Ala Pro Gly Xaa Gly
 85 90

<210> 1540
 <211> 441
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 149..439

<400> 1540
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 gtccgggag ccgaagagtg tggtaggtaa cggctctcag cgcaagggtc atttcgtcgc 120
 tgggaaggga cggccctcgc ccgcggtg atg gtg gtt agc aag atg aac aaa 172
 Met Val Val Ser Lys Met Asn Lys
 1 5
 gat gcg cag atg aga gca gcg att aac caa aag ttg ata gaa act gga 220
 Asp Ala Gln Met Arg Ala Ala Ile Asn Gln Lys Leu Ile Glu Thr Gly
 10 15 20
 gaa aga gaa cgc ctc aaa gag ttg ctg aga gct aaa tta att gaa tgt 268
 Glu Arg Glu Arg Leu Lys Glu Leu Leu Arg Ala Lys Leu Ile Glu Cys
 25 30 35 40
 ggc tgg aag gat cag ttg aag gca cac tgt aaa gag gta att aaa gaa 316
 Gly Trp Lys Asp Gln Leu Lys Ala His Cys Lys Glu Val Ile Lys Glu
 45 50 55
 aaa gga cta gaa cac gtt act gtt gat gac ttg gtg gct gaa atc act 364
 Lys Gly Leu Glu His Val Thr Val Asp Asp Leu Val Ala Glu Ile Thr
 60 65 70
 cca aaa ggc aga gcc ctg gta cct gac agt gta aag aag gag ctc cta 412
 Pro Lys Gly Arg Ala Leu Val Pro Asp Ser Val Lys Lys Glu Leu Leu
 75 80 85
 caa aga ata aga aca ttc ctt gct cag ca 441
 Gln Arg Ile Arg Thr Phe Leu Ala Gln
 90 95

<210> 1541
 <211> 369
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 92..367

004220" 666E560

<400> 1541

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cccggaaatg cgtgttctag ctttctgtgt gcttaggtgc ccgagctact gaggggtctaa      60
gtccgggcag ccgaagagtg tggtagcaa g atg aac aaa gat gcg cag atg      112
                               Met Asn Lys Asp Ala Gln Met
                               1.           5
aga gca gcg att aac caa aag ttg ata gaa act gga gaa aga gaa cgc      160
Arg Ala Ala Ile Asn Gln Lys Leu Ile Glu Thr Gly Glu Arg Glu Arg
          10           15           20
ctc aaa gag ttg ctg aga gct aaa tta att gaa tgt ggc tgg aag gat      208
Leu Lys Glu Leu Leu Arg Ala Lys Leu Ile Glu Cys Gly Trp Lys Asp
          25           30           35
cag tng aag gca cac tgt aaa gag gta att aaa gaa aaa gga cta gaa      256
Gln Xaa Lys Ala His Cys Lys Glu Val Ile Lys Glu Lys Gly Leu Glu
          40           45           50           55
cac gtt act gtt gat gac ttg gtg gct gaa atc act cca aaa ggc aga      304
His Val Thr Val Asp Asp Leu Val Ala Glu Ile Thr Pro Lys Gly Arg
          60           65           70
gcc ctg gta cct gac agt gta aag aag gag ctc cta caa aga ata aga      352
Ala Leu Val Pro Asp Ser Val Lys Lys Glu Leu Leu Gln Arg Ile Arg
          75           80           85
aca ttc ctt gct cag ca      369
Thr Phe Leu Ala Gln
          90

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<210> 1542

<211> 501

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 149..499

<400> 1542

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gtccgggcag ccgaagagtg tggtaggtaa cggctctcag cgcaagggtc atttcgtcgc      120
tgggaaggga cggccctcgc ccgcggtg atg gtg gtg agc tat gcc cgt ggt      172
                               Met Val Val Ser Tyr Ala Arg Gly
                               1           5
cct cag ggc cgg gac ccg ggc cca gcc cag gct cct ttc gat gtt agc      220
Pro Gln Gly Arg Asp Pro Gly Pro Ala Gln Ala Pro Phe Asp Val Ser
          10           15           20
aag atg aac aaa gat gcg cag atg aga gca gcg att aac caa aag ttg      268
Lys Met Asn Lys Asp Ala Gln Met Arg Ala Ala Ile Asn Gln Lys Leu
          25           30           35           40
ata gaa act gga gaa aga gaa cgc ctc aaa gag ttg ctg aga gct aaa      316
Ile Glu Thr Gly Glu Arg Glu Arg Leu Lys Glu Leu Leu Arg Ala Lys
          45           50           55
tta att gaa tgt ggc tgg aag gat cag ttg aag gca cac tgt aaa gag      364
Leu Ile Glu Cys Gly Trp Lys Asp Gln Leu Lys Ala His Cys Lys Glu
          60           65           70
gta att aaa gaa aaa gga cta gaa cac gtt act gtt gat gac ttg gtg      412
Val Ile Lys Glu Lys Gly Leu Glu His Val Thr Val Asp Asp Leu Val

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75	80	85	
gct gaa atc act cca aaa ggc aga gcc ctg gta cct gac agt gta aag			460
Ala Glu Ile Thr Pro Lys Gly Arg Ala Leu Val Pro Asp Ser Val Lys			
90	95	100	
aag gag ctc cta caa aga ata aga aca ttc ctt gct cag ca			501
Lys Glu Leu Leu Gln Arg Ile Arg Thr Phe Leu Ala Gln			
105	110	115	

<210> 1543
 <211> 500
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 33..500

<400> 1543	
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Met Ala Ser Gly Gly Ser Gly	
1	5
ggg gtg tca gta cct gcg ctg tgg agt gaa gtg aac cgg tat ggc cag	101
Gly Val Ser Val Pro Ala Leu Trp Ser Glu Val Asn Arg Tyr Gly Gln	
10	15
aac ggc gac ttc acg cgc gct ctc aag acc gtc aat aag ata cta cag	149
Asn Gly Asp Phe Thr Arg Ala Leu Lys Thr Val Asn Lys Ile Leu Gln	
25	30
atc aac aaa gat gac gta act gcc ctg cat tgt aaa gtg gta tgc ctt	197
Ile Asn Lys Asp Asp Val Thr Ala Leu His Cys Lys Val Val Cys Leu	
40	45
atc cag aat gga agt ttc aag gaa gct ttg aat gtc atc aat act cac	245
Ile Gln Asn Gly Ser Phe Lys Glu Ala Leu Asn Val Ile Asn Thr His	
60	65
acc aaa gtg tta gcc aat aac tct ctc tcc ttt gaa aag gca tat tgc	293
Thr Lys Val Leu Ala Asn Asn Ser Leu Ser Phe Glu Lys Ala Tyr Cys	
75	80
gag tac agg ctg aac aga att gag aat gcc ttg aag aca ata gaa agt	341
Glu Tyr Arg Leu Asn Arg Ile Glu Asn Ala Leu Lys Thr Ile Glu Ser	
90	95
gcc aac cag cag aca gac aaa ctg aag gag ctt tat gga caa gtg tta	389
Ala Asn Gln Gln Thr Asp Lys Leu Lys Glu Leu Tyr Gly Gln Val Leu	
105	110
tac cgt ttg gaa cgc tat gat gaa tgc tta gca gtg tat aga gat ctc	437
Tyr Arg Leu Glu Arg Tyr Asp Glu Cys Leu Ala Val Tyr Arg Asp Leu	
120	125
gtc cga aac tcc caa gat gnt atg atg agg aga gga aaa caa act ttc	485
Val Arg Asn Ser Gln Asp Xaa Met Met Arg Arg Gly Lys Gln Thr Phe	
140	145
agc agt tgt tgc agc	500
Ser Ser Cys Cys Ser	
155	

<210> 1544

<211> 343
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 159..341

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 cgggctgcgt acgtcagagc tgcctccgaa gtggtaaa atg tgc tgc gag aag tgg 176
 Met Cys Cys Glu Lys Trp
 1 5
 agc cgc gtg gcg gaa atg ttt ctc ttc act gag gag cgg gag gat tgt 224
 Ser Arg Val Ala Glu Met Phe Leu Phe Thr Glu Glu Arg Glu Asp Cys
 10 15 20
 aag ata ctg tgc ctt tgc tcc agg gca ttt gtg gag gat cga aaa ttg 272
 Lys Ile Leu Cys Leu Cys Ser Arg Ala Phe Val Glu Asp Arg Lys Leu
 25 30 35
 tac aat ttg gga tta aaa ggc tat tac atc aga gac agt ggc aac aat 320
 Tyr Asn Leu Gly Leu Lys Gly Tyr Tyr Ile Arg Asp Ser Gly Asn Asn
 40 45 50
 tca gga gac cag gcg aca gaa ga 343
 Ser Gly Asp Gln Ala Thr Glu
 55 60

<210> 1545
 <211> 502
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 65..502

<400> 1545
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 gaag atg gtg ctg atc aag gaa ttc cgt gtg gtt ttg cca tgt tct gtt 109
 Met Val Leu Ile Lys Glu Phe Arg Val Val Leu Pro Cys Ser Val
 1 5 10 15
 cag gag tat cag gtt ggg cag ctt tac tct gtt gca gaa gct agt aag 157
 Gln Glu Tyr Gln Val Gly Gln Leu Tyr Ser Val Ala Glu Ala Ser Lys
 20 25 30
 aat gag act ggt ggt gga gaa gga att gaa gtc tta aag aat gaa cct 205
 Asn Glu Thr Gly Gly Gly Glu Gly Ile Glu Val Leu Lys Asn Glu Pro
 35 40 45
 tat gag aag gat gga gaa aag gga cag tat acg cac aaa att tat cac 253
 Tyr Glu Lys Asp Gly Glu Lys Gly Gln Tyr Thr His Lys Ile Tyr His
 50 55 60
 cta aag agc aaa gtg cct gca ttc gtg agg atg att gct ccc gag ggc 301
 Leu Lys Ser Lys Val Pro Ala Phe Val Arg Met Ile Ala Pro Glu Gly

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65	70	75	
tcc ttg gtg ttt cat gag aaa gcc tgg aat gcg tac ccc tac tgt aga			349
Ser Leu Val Phe His Glu Lys Ala Trp Asn Ala Tyr Pro Tyr Cys Arg			
80	85	90	95
aca att gta acg aat gaa tat atg aaa gat gat ttc ttc att aaa atc			397
Thr Ile Val Thr Asn Glu Tyr Met Lys Asp Asp Phe Phe Ile Lys Ile			
	100	105	110
gaa aca tgg cac aaa cca gac ttg gga aca tta gaa aat gta cat ggt			445
Glu Thr Trp His Lys Pro Asp Leu Gly Thr Leu Glu Asn Val His Gly			
	115	120	125
tta gat cca aac aca tgg aaa act gtt gaa att gtc cat ata gat att			493
Leu Asp Pro Asn Thr Trp Lys Thr Val Glu Ile Val His Ile Asp Ile			
	130	135	140
gca gat aga			502
Ala Asp Arg			
145			

<210> 1546
 <211> 261
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 55..261

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	1
gcg gag ctg atc cag aag aag cta cag gga gaa gtg gag aaa tat caa	105
Ala Glu Leu Ile Gln Lys Lys Leu Gln Gly Glu Val Glu Lys Tyr Gln	
	5
	10
	15
cag cta cag aag gac tta agt aaa tcc atg tcg ggg agg cag aaa ctt	153
Gln Leu Gln Lys Asp Leu Ser Lys Ser Met Ser Gly Arg Gln Lys Leu	
	20
	25
	30
gaa gca caa cta aca gaa aat aat atc gtg aaa gag gaa ctg gcc ctg	201
Glu Ala Gln Leu Thr Glu Asn Asn Ile Val Lys Glu Glu Leu Ala Leu	
	35
	40
	45
ctg gat ggg tcc aac gtg gtc ttt aaa ctt ctg ggt ccg gtg cta gtc	249
Leu Asp Gly Ser Asn Val Val Phe Lys Leu Leu Gly Pro Val Leu Val	
	50
	55
	60
	65
aaa cag gag ctg	261
Lys Gln Glu Leu	

<210> 1547
 <211> 258
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 26..256

<400> 1547

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gcttggtgcg cccgctgtca ccgcc atg gct gcc ccg tgt ttg ctg cgg caa      52
                               Met Ala Ala Pro Cys Leu Leu Arg Gln
                               1                               5

gga cga gcc ggg gcg ctg aag act atg ctc cag gaa gcc cag gtg ttt      100
Gly Arg Ala Gly Ala Leu Lys Thr Met Leu Gln Glu Ala Gln Val Phe
10                               15                               20                               25

cga gga ctt gcy tct acg gtt wct twg nct gcg gaa tca ggg aag agt      148
Arg Gly Leu Ala Ser Thr Val Xaa Xaa Xaa Ala Glu Ser Gly Lys Ser
                               30                               35                               40

gaa aag ggt cag cca mag aat tcc aag aag caa agt cca cca aaa aag      196
Glu Lys Gly Gln Pro Xaa Asn Ser Lys Lys Gln Ser Pro Pro Lys Lys
                               45                               50                               55

cca gcc cca gtg cct gct gag ccg ttt gac aac act acc tac aag aac      244
Pro Ala Pro Val Pro Ala Glu Pro Phe Asp Asn Thr Thr Tyr Lys Asn
                               60                               65                               70

ctg cag cat cat ga      258
Leu Gln His His
75

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<210> 1548

<211> 360

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 111..359

<400> 1548

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cattttgatg gcaggaagag tccggttctg kgacagctgg agacagtggg ggtgactgaa      60
ataactttac caaaggaaag ctattttgcg aactatcttc tccagcggag atg gcm      116
                               Met Ala
                               1

aat gtg ctt tgt aac aga gcc aga ctg gtt tcc tat ctc cca gga ttt      164
Asn Val Leu Cys Asn Arg Ala Arg Leu Val Ser Tyr Leu Pro Gly Phe
5                               10                               15

tgc tct tta gtt aaa agg gtt gtc aat ccc aaa gcc ttt tcg act gca      212
Cys Ser Leu Val Lys Arg Val Val Asn Pro Lys Ala Phe Ser Thr Ala
20                               25                               30

gga tca tca ggt tcg gat gag tct cat gtg gct gct gca cct cca gat      260
Gly Ser Ser Gly Ser Asp Glu Ser His Val Ala Ala Ala Pro Pro Asp
35                               40                               45                               50

ata tgc tct cga aca gtg tgg cct gat gaa act atg gga ccc ttt gga      308
Ile Cys Ser Arg Thr Val Trp Pro Asp Glu Thr Met Gly Pro Phe Gly
55                               60                               65

cct caa gat cag agg ttc cag ctt cct ggg aac ata ggt ttt gat tgt      356
Pro Gln Asp Gln Arg Phe Gln Leu Pro Gly Asn Ile Gly Phe Asp Cys
70                               75                               80

cac c      360
His

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<210> 1549
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 taatcctaga atcgtggatg gtaccttatt tggataaaaa ggtctttgca gatgtaatta 120
 agaaccttga gatgaggaga tcacctctgga ttatctggtg gactgtaaag tcaatgac 178
 atg tat tca tat atg aca gaa gag aag aca tgg aga aga gga ggg agt 226
 Met Tyr Ser Tyr Met Thr Glu Glu Lys Thr Trp Arg Arg Gly Gly Ser
 1 5 10 15
 agt tgt gac cgt gga ggc aga gaa tgg agt aat gtg atc ata aat caa 274
 Ser Cys Asp Arg Gly Gly Arg Glu Trp Ser Asn Val Ile Ile Asn Gln
 20 25 30
 gga atg ctg aca gcc act aaa gct gga gaa ggc caa gga cag ata ttc 322
 Gly Met Leu Thr Ala Thr Lys Ala Gly Glu Gly Gln Gly Gln Ile Phe
 35 40 45
 aat cct ccc gta gaa gta c 341
 Asn Pro Pro Val Glu Val
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<210> 1550
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<220>
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 mcggtccgam tgtctcggc ggttggtcag tgtgaatttg tgacagctgc agttgctccc 120
 cgcccccgag marmcgagga gtctacc atg gct caa gaa tct ccc aaa aat tca 174
 Met Ala Gln Glu Ser Pro Lys Asn Ser
 1 5
 gca gca gaa att cca gtg act agt aat gga gaa gtt gat gac tct cgt 222
 Ala Ala Glu Ile Pro Val Thr Ser Asn Gly Glu Val Asp Asp Ser Arg
 10 15 20 25
 gaa cat agc ttt aat agg gat ttg aag cat tca tta cca tct gga ctt 270
 Glu His Ser Phe Asn Arg Asp Leu Lys His Ser Leu Pro Ser Gly Leu
 30 35 40
 ggt ctc tca gaa acc caa att aca tct cat ggc ttt gac aat acc aaa 318
 Gly Leu Ser Glu Thr Gln Ile Thr Ser His Gly Phe Asp Asn Thr Lys
 45 50 55
 gar ggt gtt a 328

Glu Gly Val
60

<210> 1551
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<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 103..282

<400> 1551
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cgggtcttcgg ttgtcacagc tagaggccgc gcasagcaaa gg atg agc gga acc 114
Met Ser Gly Thr
1
ttg gaa aag gtg ctg tgc ctg agg aac aat acc att ttt aag caa gcc 162
Leu Glu Lys Val Leu Cys Leu Arg Asn Asn Thr Ile Phe Lys Gln Ala
5 10 15 20
ttt tct ctc tta agg ttt aga act tca gga gag aag ccc atc tat tct 210
Phe Ser Leu Leu Arg Phe Arg Thr Ser Gly Glu Lys Pro Ile Tyr Ser
25 30 35
gta ggt gga att cta cta agt atc agt cgg ccc tac aag aca aag ccc 258
Val Gly Gly Ile Leu Leu Ser Ile Ser Arg Pro Tyr Lys Thr Lys Pro
40 45 50
acc cac ggc att gga aag tac aag 282
Thr His Gly Ile Gly Lys Tyr Lys
55 60

<210> 1552
<211> 507
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 339..506

<400> 1552
agaracagac ttgtgaaaaa gagttatgcc cactttgggg agacttcgaa aaggttaaga 60
agttcttaca agagttctac caggatgatg aactcgggaa gaagcagttc aagtatggga 120
accagttggt tcggctggct catcgggaac aggtggctct gtatgtggac ctggacgacg 180
tagccgagga tgaccccgag ttggtggact caatttgtga gaatgcccag gcgctacgcg 240
aastctttgc tgatgccgta caagagctgc tgcctcagta caaggagagg gaagtggtaa 300
ataaagatgt cctggacggt tacattgagc atcggcta atg atg gag cag cgg agt 356
Met Met Glu Gln Arg Ser
1 5
cgg gac cct ggg atg gtc cga agc ccc cag aac cag tac cct gct gaa 404
Arg Asp Pro Gly Met Val Arg Ser Pro Gln Asn Gln Tyr Pro Ala Glu
10 15 20
ctc atg cgc aga ttt gag ctg tat ttt caa ggc cct agc agc aac aag 452

Leu	Met	Arg	Arg	Phe	Glu	Leu	Tyr	Phe	Gln	Gly	Pro	Ser	Ser	Asn	Lys	
	25						30					35				
cct	cgt	gtg	atc	cgg	gaa	gtg	cgg	gct	gac	tct	gtg	ggg	aag	ttg	gta	500
Pro	Arg	Val	Ile	Arg	Glu	Val	Arg	Ala	Asp	Ser	Val	Gly	Lys	Leu	Val	
	40					45					50					
act	gtg	c														507
Thr	Val															
55																

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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 93..458

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gcagaccctc	tggacctggt	cacgattcca	ta	atg	tac	cac	aac	agt	agt	cag						113	
				Met	Tyr	His	Asn	Ser	Ser	Gln							
				1				5									
aag	cgg	cac	tgg	acc	ttc	tcc	agc	gag	gag	cag	ctg	gca	aga	ctg	cgg	161	
Lys	Arg	His	Trp	Thr	Phe	Ser	Ser	Glu	Glu	Gln	Leu	Ala	Arg	Leu	Arg		
		10					15					20					
gct	gac	gcc	aac	cgc	aaa	ttc	aga	tgc	aaa	gcc	gtg	gcc	aac	ggg	aag	209	
Ala	Asp	Ala	Asn	Arg	Lys	Phe	Arg	Cys	Lys	Ala	Val	Ala	Asn	Gly	Lys		
	25				30					35							
gtt	ctt	ccg	aat	gat	cca	gtc	ttt	ctt	gag	cct	cat	gaa	gaa	atg	aca	257	
Val	Leu	Pro	Asn	Asp	Pro	Val	Phe	Leu	Glu	Pro	His	Glu	Glu	Met	Thr		
	40				45				50					55			
ctc	tgc	aaa	tac	tat	gag	aaa	agg	tta	ttg	gaa	ttc	tgt	tcg	gtg	ttt	305	
Leu	Cys	Lys	Tyr	Tyr	Glu	Lys	Arg	Leu	Leu	Glu	Phe	Cys	Ser	Val	Phe		
			60					65				70					
aag	cca	gca	atg	cca	aga	tct	gtt	gtg	ggt	acg	gct	tgt	tat	ttc	aaa	353	
Lys	Pro	Ala	Met	Pro	Arg	Ser	Val	Val	Gly	Thr	Ala	Cys	Tyr	Phe	Lys		
		75					80					85					
cgt	ttt	tat	ctt	aat	aac	tca	gta	atg	gaa	tat	cac	ccc	agg	ata	ata	401	
Arg	Phe	Tyr	Leu	Asn	Asn	Ser	Val	Met	Glu	Tyr	His	Pro	Arg	Ile	Ile		
		90				95						100					
atg	ctc	act	tgt	gca	ttt	ttg	gcc	tgc	aaa	gta	gat	gaa	ttc	aat	gta	449	
Met	Leu	Thr	Cys	Ala	Phe	Leu	Ala	Cys	Lys	Val	Asp	Glu	Phe	Asn	Val		
	105					110					115						
tct	agt	cct														458	
Ser	Ser	Pro															
120																	

<210> 1554
 <211> 316
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 19..315

<400> 1554

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Met Ala Val Gln Val Val Gln Ala Val Gln Ala	
1 5 10	
gtt cat ctc gag tct gac gct ttc ctc gtt tgt ctc aac cac gct ctg	99
Val His Leu Glu Ser Asp Ala Phe Leu Val Cys Leu Asn His Ala Leu	
15 20 25	
agc aca gag aag gag gaa gta atg ggg ctg tgc ata ggg gag ttg aac	147
Ser Thr Glu Lys Glu Glu Val Met Gly Leu Cys Ile Gly Glu Leu Asn	
30 35 40	
gat gat aca agg agt gac tcc aaa ttt gca tat act gga act gaa atg	195
Asp Asp Thr Arg Ser Asp Ser Lys Phe Ala Tyr Thr Gly Thr Glu Met	
45 50 55	
cgc aca gtt gct gaa aag gtt gat gcc gtc aga att gtt cac att cat	243
Arg Thr Val Ala Glu Lys Val Asp Ala Val Arg Ile Val His Ile His	
60 65 70 75	
tct gtc atc atc tta cga cgt tct gat aag agg aag gac cga gta gaa	291
Ser Val Ile Ile Leu Arg Arg Ser Asp Lys Arg Lys Asp Arg Val Glu	
80 85 90	
att tct cca gag cag ctg tct gca g	316
Ile Ser Pro Glu Gln Leu Ser Ala	
95	

<210> 1555
 <211> 288
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 96..287

<400> 1555

gcagtcagtt tccaagtttt gctttgcaat cagtagtttt caagggagct tttaaagctg	60
aactgaaatg tttgaaatgt ggaacactct tgacc atg aaa tat gtt cta ctt	113
Met Lys Tyr Val Leu Leu	
1 5	
ama tkg ccy tmm agc ctt waa aaa gtt ctt tgc att aga gtc aag gat	161
Xaa Xaa Pro Xaa Ser Leu Xaa Lys Val Leu Cys Ile Arg Val Lys Asp	
10 15 20	
tac att ctt cct gga gcc aag cat ggg gcc agc tgt aaa caa gcc gca	209
Tyr Ile Leu Pro Gly Ala Lys His Gly Ala Ser Cys Lys Gln Ala Ala	
25 30 35	
ttt ctc ctt ggg gag act gat aat tta aaa ggt ttg ttg tgt cag aaa	257
Phe Leu Leu Gly Glu Thr Asp Asn Leu Lys Gly Leu Leu Cys Gln Lys	
40 45 50	
cat tcc cag ctt cat cac caa ccc ttt cct t	288
His Ser Gln Leu His His Gln Pro Phe Pro	

55

60

<210> 1556
 <211> 483
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 140..481

<400> 1556
 gwtttgtggt cccggagaag agattggcgg aggggaaaga ctgagtcgtc ttccctttgc 60
 ccgcttctgt ggactgttcg aacgcccagg ggtgggcca acccgtttct taggaaacca 120
 ggaatccagg gaaggcaga atg gct tcc ttt ggg tgg aag agg aaa att ggt 172
 Met Ala Ser Phe Gly Trp Lys Arg Lys Ile Gly
 1 5 10
 gag aag gtc tca aag gtc act tcc cag cag ttt gaa gct gaa gct gct 220
 Glu Lys Val Ser Lys Val Thr Ser Gln Gln Phe Glu Ala Glu Ala Ala
 15 20 25
 gat gag aag gat gta gtt gac aac gat gaa ggg aac tgg ctt cat gcc 268
 Asp Glu Lys Asp Val Val Asp Asn Asp Glu Gly Asn Trp Leu His Ala
 30 35 40
 att aaa cgt agg aaa gaa att ctt ctt gaa ggc tgt gct gag aaa agt 316
 Ile Lys Arg Arg Lys Glu Ile Leu Leu Glu Gly Cys Ala Glu Lys Ser
 45 50 55
 aaa cag ctg aag gat gaa gga gcc agt ttg gct gaa aat aaa aga tat 364
 Lys Gln Leu Lys Asp Glu Gly Ala Ser Leu Ala Glu Asn Lys Arg Tyr
 60 65 70 75
 cgg gag gca att cag aag tgg gat gaa gca cta cag tta act cca aat 412
 Arg Glu Ala Ile Gln Lys Trp Asp Glu Ala Leu Gln Leu Thr Pro Asn
 80 85 90
 gat gct acc cta tac gar atg aaa tca cag gtg cta atg tct ctt cat 460
 Asp Ala Thr Leu Tyr Glu Met Lys Ser Gln Val Leu Met Ser Leu His
 95 100 105
 gaa atg ttt ccc agc agt aca tg 483
 Glu Met Phe Pro Ser Ser Thr
 110

<210> 1557
 <211> 422
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 60..422

<400> 1557
 attgctctta tagcctgtga gggaggaaga aacatttgcc arccaggcya gtgacagaa 59
 atg gat tcg aaa tay cag tgt gtg aag ctg aat gat ggt cac ttc atg 107
 Met Asp Ser Lys Tyr Gln Cys Val Lys Leu Asn Asp Gly His Phe Met

004220-03400-051399

1	5	10	15	
cct gtc ctg gga ttt ggc acc tat gcg cct gca gag gtt cct aaa agt				155
Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Ala Glu Val Pro Lys Ser				
20	25	30		
aaa gct tta gag gcc acc aaa ttg gca att gaa gct ggc ttc cgc cat				203
Lys Ala Leu Glu Ala Thr Lys Leu Ala Ile Glu Ala Gly Phe Arg His				
35	40	45		
att gat tct gct cat tta tac aat aat gag gag cag gtt gga ctg gcc				251
Ile Asp Ser Ala His Leu Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala				
50	55	60		
atc cga agc aag att gca gat ggc agt gtg aag aga gaa gac ata ttc				299
Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe				
65	70	75	80	
tac act tca aag ctt tgg tgc aat tcc cat cga cca gag ttg gtc cga				347
Tyr Thr Ser Lys Leu Trp Cys Asn Ser His Arg Pro Glu Leu Val Arg				
85	90	95		
cca gcc ttg gaa agg tca ctg ara aat ctt caa ttg gat tat gtt gac				395
Pro Ala Leu Glu Arg Ser Leu Xaa Asn Leu Gln Leu Asp Tyr Val Asp				
100	105	110		
ctc tac ctt ayt cat ttt cca gtg tct				422
Leu Tyr Leu Xaa His Phe Pro Val Ser				
115	120			

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 <211> 387
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 71..385

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cagaaacgac atg agc aca gca gga aaa gta atc aaa tgc aaa gca gct	109
Met Ser Thr Ala Gly Lys Val Ile Lys Cys Lys Ala Ala	
1	5
gtg cta tgg gag gta aag aaa ccc ttt tcc att gag gat gtg gag gtt	157
Val Leu Trp Glu Val Lys Lys Pro Phe Ser Ile Glu Asp Val Glu Val	
15	20
gca cct cct aag gct tat gaa gtt cgc att aag atg gtg gct gta gga	205
Ala Pro Pro Lys Ala Tyr Glu Val Arg Ile Lys Met Val Ala Val Gly	
30	35
atc tgt cgc aca gat gac cac rtg gtt agt ggc aac ctg gtg acc ccc	253
Ile Cys Arg Thr Asp Asp His Xaa Val Ser Gly Asn Leu Val Thr Pro	
50	55
ctt cct gtg att tta ggc cat gag gca gcc ggc atc gtg gag agt gtt	301
Leu Pro Val Ile Leu Gly His Glu Ala Gly Ile Val Glu Ser Val	
65	70
gga gaa ggg gtg act aca gtc aaa cca ggt aca gga ttc aca ctc agg	349
Gly Glu Gly Val Thr Thr Val Lys Pro Gly Thr Gly Phe Thr Leu Arg	
80	85
gaa cac gtg tgg ttc acc atc cag gat ttc cca gcc tg	387

Glu His Val Trp Phe Thr Ile Gln Asp Phe Pro Ala
 95 100 105

<210> 1559
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 75..518

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 agcctgaagc aaac atg gat caa gaa act gta ggc aat gtt gtc ctg ttg 110
 Met Asp Gln Glu Thr Val Gly Asn Val Val Leu Leu
 1 5 10
 gcc atc gtc acc ctc atc agc gtg gtc cag aat gga ttc ttt gcc cat 158
 Ala Ile Val Thr Leu Ile Ser Val Val Gln Asn Gly Phe Phe Ala His
 15 20 25
 aaa gtg gag cac gaa agc agg acc cag aat ggg agg agc ttc cag agg 206
 Lys Val Glu His Glu Ser Arg Thr Gln Asn Gly Arg Ser Phe Gln Arg
 30 35 40
 acc gga aca ctt gcc ttt gag cgg gtc tac act gcc aac cag aac tgt 254
 Thr Gly Thr Leu Ala Phe Glu Arg Val Tyr Thr Ala Asn Gln Asn Cys
 45 50 55 60
 gta gat gcg tac ccc act ttc ctc gct gtg ctc tgg tct gcg ggg cta 302
 Val Asp Ala Tyr Pro Thr Phe Leu Ala Val Leu Trp Ser Ala Gly Leu
 65 70 75
 ctt tgc agc caa gtt cct gct gcg ttt gct gga ctg atg tac ttg ttt 350
 Leu Cys Ser Gln Val Pro Ala Ala Phe Ala Gly Leu Met Tyr Leu Phe
 80 85 90
 gtg agg caa aag tac ttt gtc ggt tac cta gga gag aga acg cag agc 398
 Val Arg Gln Lys Tyr Phe Val Gly Tyr Leu Gly Glu Arg Thr Gln Ser
 95 100 105
 acc cct ggc tac ata ttt ggg aaa cgc atc ata ctc ttc ctg ttc ctc 446
 Thr Pro Gly Tyr Ile Phe Gly Lys Arg Ile Ile Leu Phe Leu Phe Leu
 110 115 120
 atg tcc gtt gct ggc ata ttc aac tat nay stc atc ttc ttt ttc gga 494
 Met Ser Val Ala Gly Ile Phe Asn Tyr Xaa Xaa Ile Phe Phe Phe Gly
 125 130 135 140
 agt gac ttt gaa aac tac ata aag ac 520
 Ser Asp Phe Glu Asn Tyr Ile Lys
 145

<210> 1560
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 <212> DNA
 <213> Homo sapiens

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 <222> 134..556

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gatgtagccg cttgcgagaga ctgcaagcag ccgcggcgcg cccggccctc cctcttccgc      120
tgccgcccgtg gga atg gaa aca tct gcc cca cgt gcc gga agc caa gtg      169
      Met Glu Thr Ser Ala Pro Arg Ala Gly Ser Gln Val
      1          5          10
gtg gcg aca act gcg cgc cac tcc gcg gcc tac cgc gca gat cct cta      217
Val Ala Thr Thr Ala Arg His Ser Ala Ala Tyr Arg Ala Asp Pro Leu
      15          20          25
cgt gtg tcc tcg cga gac aag ctc acc gaa atg gcc gcg tcc agt caa      265
Arg Val Ser Ser Arg Asp Lys Leu Thr Glu Met Ala Ala Ser Ser Gln
      30          35          40
gga aac ttt gag gga aat ttt gag tca ctg gac ctt gcg gaa ttt gct      313
Gly Asn Phe Glu Gly Asn Phe Glu Ser Leu Asp Leu Ala Glu Phe Ala
      45          50          55          60
aag aag cag cca tgg tgg cgt aas tgt tcg ggc agg aat ctg gac ctt      361
Lys Lys Gln Pro Trp Trp Arg Xaa Cys Ser Gly Arg Asn Leu Asp Leu
      65          70          75
cag cag aaa agt ata gcg tgg caa ccc agc tgt tca ttg gag gtg tca      409
Gln Gln Lys Ser Ile Ala Trp Gln Pro Ser Cys Ser Leu Glu Val Ser
      80          85          90
ctg gat ggt gca cag gtt tca tat tcc aga agg ttg gaa agt tgg ctg      457
Leu Asp Gly Ala Gln Val Ser Tyr Ser Arg Arg Leu Glu Ser Trp Leu
      95          100          105
caa cag ctg tgg gag gtg gat ttt ttc tcc ttc agg tct gta tgt gaa      505
Gln Gln Leu Trp Glu Val Asp Phe Phe Ser Phe Arg Ser Val Cys Glu
      110          115          120
atg ttc tca gat gtt tgg aaa ttc cac ctg ccc att aag gaa tgt ggt      553
Met Phe Ser Asp Val Trp Lys Phe His Leu Pro Ile Lys Glu Cys Gly
      125          130          135          140
gtg g
Val
      557

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<210> 1561
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 123..395

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<400> 1561
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gtcatgctct ttgtagcgtg gtgcttctgt tgctcacaga ggtgcctgct tccccttctg      120
cc atg att gga agt ttc ctg agg cct ccc cag cca tgt gga act gac      167
      Met Ile Gly Ser Phe Leu Arg Pro Pro Gln Pro Cys Gly Thr Asp
      1          5          10          15
aac ttg cct knt gat gat ttt caa gag agt wgt gct atg atg tgg caa      215
Asn Leu Pro Xaa Asp Asp Phe Gln Glu Ser Xaa Ala Met Met Trp Gln
      20          25          30

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aag tat gca gga agc agg cgg tca atg cct ctg gga gca agg atc ctt	263
Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala Arg Ile Leu	
35 40 45	
ttc cac ggt gtg ttc tat gcc ggg ggc ttt gcc att gtg tat tac ctc	311
Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val Tyr Tyr Leu	
50 55 60	
att caa aag ttt cat tcc agg gct tta tat tac aag ttg gca gtg gag	359
Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu Ala Val Glu	
65 70 75	
cag ctg cag agc cat ccc gag gca cag gaa gct ctg g	396
Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu	
80 85 90	

<210> 1562
 <211> 328
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 55..327

<400> 1562	
aattacccag cctaaccatt tctcaggtgc ttgcgaggtg atcagaaggc aaag atg	57
Met	
1	
tcg gag cga aaa gta tta aac aaa tac tac ccg ccg gac ttt gac cca	105
Ser Glu Arg Lys Val Leu Asn Lys Tyr Tyr Pro Pro Asp Phe Asp Pro	
5 10 15	
tca aag atc ccc aaa ctc aag ctc ccc aaa gac cgg cag tac gtg gtg	153
Ser Lys Ile Pro Lys Leu Lys Leu Pro Lys Asp Arg Gln Tyr Val Val	
20 25 30	
cgg ctg atg gcc ccc ttc aac atg agg tgt aag acg tgc gga gaa tac	201
Arg Leu Met Ala Pro Phe Asn Met Arg Cys Lys Thr Cys Gly Glu Tyr	
35 40 45	
atc tac aag ggg aag aaa ttc aac gct cgg aag gag acg gtg cag aac	249
Ile Tyr Lys Gly Lys Lys Phe Asn Ala Arg Lys Glu Thr Val Gln Asn	
50 55 60 65	
gag gtc tac ctg ggc ctg ccc atc ttc cgc ttt tac atc aag tgc acg	297
Glu Val Tyr Leu Gly Leu Pro Ile Phe Arg Phe Tyr Ile Lys Cys Thr	
70 75 80	
cgc tgc ctg gca gag atc acc ttc aag aca g	328
Arg Cys Leu Ala Glu Ile Thr Phe Lys Thr	
85 90	

<210> 1563
 <211> 350
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 131..349

<400> 1563

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gcagggctct taagaacgaa cggcttgggc gcggactggt atccggggac tgtgacttgc      120
agggtcgcc  atg gag cca gag cag atg ctg gag gga caa acg cag gtt      169
           Met Glu Pro Glu Gln Met Leu Glu Gly Gln Thr Gln Val
           1           5           10
gca gaa aat cct cac tct gag tac ggt ctc aca gac aac gtt gag aga      217
Ala Glu Asn Pro His Ser Glu Tyr Gly Leu Thr Asp Asn Val Glu Arg
           15           20           25
ata gta gaa aat gag aag att aat gca gaa aag tca tca aag cag aag      265
Ile Val Glu Asn Glu Lys Ile Asn Ala Glu Lys Ser Ser Lys Gln Lys
           30           35           40           45
gta gat ctc cag tct ttg cca act cgt gcc tac ctg gat cag aca gtt      313
Val Asp Leu Gln Ser Leu Pro Thr Arg Ala Tyr Leu Asp Gln Thr Val
           50           55           60
rtg cct atc tta tta cag gga ctt gct gtn gct tgc a      350
Xaa Pro Ile Leu Leu Gln Gly Leu Ala Val Ala Cys
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<210> 1564

<211> 395

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 83..394

<400> 1564

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tattcggttc aggaagcatt aa atg cca gac cat ggt gga ttc gta tgg gga      112
           Met Pro Asp His Gly Gly Phe Val Trp Gly
           1           5           10
ctg aca ttt gtt act ata aaa atc att tct caa gaa gtt cag ttg ctg      160
Leu Thr Phe Val Thr Ile Lys Ile Ile Ser Gln Glu Val Gln Leu Leu
           15           20           25
cag gtg ggc aaa agg gaa aat cct act ata caa tta cat tta ctg tca      208
Gln Val Gly Lys Arg Glu Asn Pro Thr Ile Gln Leu His Leu Leu Ser
           30           35           40
att ttc cac ata aag atg atg ttt gct act ttg ctt atc act atc cat      256
Ile Phe His Ile Lys Met Met Phe Ala Thr Leu Leu Ile Thr Ile His
           45           50           55
ata cgt att caa ctt tac aga tgc atc ttc aaa aat tgg aat cag cac      304
Ile Arg Ile Gln Leu Tyr Arg Cys Ile Phe Lys Asn Trp Asn Gln His
           60           65           70
aca atc ctc agc aaa tct att ttc gga aag atg tgt tat gtg aaa ccc      352
Thr Ile Leu Ser Lys Ser Ile Phe Gly Lys Met Cys Tyr Val Lys Pro
           75           80           85           90
tgt ctg gaa cag ctg ccc ctt ggt gac tat aac agc aat gcc a      395
Cys Leu Glu Gln Leu Pro Leu Gly Asp Tyr Asn Ser Asn Ala
           95           100

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<210> 1565
 <211> 518
 <212> DNA
 <213> Homo sapiens

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 <221> CDS
 <222> 132..518

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 aagaatccgt c atg act cta ctg gaa cct gag atg tta atg atg gya gta 170
 Met Thr Leu Leu Glu Pro Glu Met Leu Met Met Xaa Val
 1 5 10
 cag tca gtg cta cag ttg aaa ctc cag cag cgc cgg acc cgg gaa gaa 218
 Gln Ser Val Leu Gln Leu Lys Leu Gln Gln Arg Arg Thr Arg Glu Glu
 15 20 25
 ctg gtg agc caa ggg atc atg ccg cct ttg aaa agt cca gcc gca ttt 266
 Leu Val Ser Gln Gly Ile Met Pro Pro Leu Lys Ser Pro Ala Ala Phe
 30 35 40 45
 cat gag cag aga agg agc ttg gag cgg gcc agg aca gag gac tat ctc 314
 His Glu Gln Arg Arg Ser Leu Glu Arg Ala Arg Thr Glu Asp Tyr Leu
 50 55 60
 aaa cgg aag att cgt tcc cgg ccg gag aga tcg gag ctg gtc agg atg 362
 Lys Arg Lys Ile Arg Ser Arg Pro Glu Arg Ser Glu Leu Val Arg Met
 65 70 75
 cac att ttg gaa gag acc tcg gct gag cca tcc ctc cag gcc aag cag 410
 His Ile Leu Glu Glu Thr Ser Ala Glu Pro Ser Leu Gln Ala Lys Gln
 80 85 90
 ctg aag ctg aag aga gcc aga cta gcc grk gac ctc aat gag aag att 458
 Leu Lys Leu Lys Arg Ala Arg Leu Ala Xaa Asp Leu Asn Glu Lys Ile
 95 100 105
 gca cag agg cct gnn ntt ttn gag ctg gtg gag aag aac atc ctt cct 506
 Ala Gln Arg Pro Xaa Xaa Xaa Glu Leu Val Glu Lys Asn Ile Leu Pro
 110 115 120 125
 gtt gag tcc agc 518
 Val Glu Ser Ser

<210> 1566
 <211> 345
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 79..345

<400> 1566
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 aagtcgcaga gaatcagg atg gag gcc gtg gcg acg gcg acg gcg gcg aag 111

004220-666750

	Met	Glu	Ala	Val	Ala	Thr	Ala	Thr	Ala	Ala	Lys	
	1				5				10			
gaa ccc gat aag ggc tgc ata gag cct gga cct ggg cac tgg ggt gag												159
Glu Pro Asp Lys Gly Cys Ile Glu Pro Gly Pro Gly His Trp Gly Glu												
	15				20				25			
ctg agc cgg aca cca gtc cca tct aaa ccc cag gac aaa gtg gaa gca												207
Leu Ser Arg Thr Pro Val Pro Ser Lys Pro Gln Asp Lys Val Glu Ala												
	30				35				40			
gct gag gca aca cca gtg gcc ctg gac agt gac acc tcc ggg gct gaa												255
Ala Glu Ala Thr Pro Val Ala Leu Asp Ser Asp Thr Ser Gly Ala Glu												
	45				50				55			
aat gca gca gtg agt gct atg ctg cac gct gta gcc gcc agc cgc ctg												303
Asn Ala Ala Val Ser Ala Met Leu His Ala Val Ala Ala Ser Arg Leu												
	60				65				70			75
cct gtt tgc agc cag cag cag ggt gaa ccc gac ttg aca gag												345
Pro Val Cys Ser Gln Gln Gln Gly Glu Pro Asp Leu Thr Glu												
	80								85			

<210> 1567
 <211> 351
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 117..350

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gacacgctsa acaggaacag aaatgaataa aagtcgctgg cagagtagaa gacgac atg												119
											Met	
											1	
gga gaa gaa gcc acc agc aga acc ctt gst tca gac tcc gtg nat yck												167
Gly Glu Glu Ala Thr Ser Arg Thr Leu Xaa Ser Asp Ser Val Xaa Xaa												
	5								10		15	
raa gac agg tct gac tcc cgg gca gca cag ccc gct cac gat tcc ggc												215
Xaa Asp Arg Ser Asp Ser Arg Ala Ala Gln Pro Ala His Asp Ser Gly												
	20								25		30	
cac ggt gat gac gag tct ccg tca acc tcg tct ggc aca gct ggg acc												263
His Gly Asp Asp Glu Ser Pro Ser Thr Ser Ser Gly Thr Ala Gly Thr												
	35								40		45	
tcc tct gtg cca gag cta cct ggg ttt tac ttt gac cct gaa aag aaa												311
Ser Ser Val Pro Glu Leu Pro Gly Phe Tyr Phe Asp Pro Glu Lys Lys												
	50								55		60	65
cgc tac ttc cgc ttg ctc cct gga cat aac aac tgc aac c												351
Arg Tyr Phe Arg Leu Leu Pro Gly His Asn Asn Cys Asn												
	70										75	

<210> 1568
 <211> 235
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 67..234

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 ctcaaa atg gat tgg tta aac gtc ttt aaa gat ttt ttc agc att gga 108
 Met Asp Trp Leu Asn Val Phe Lys Asp Phe Phe Ser Ile Gly
 1 5 10
 aaa gtg aaa aga aaa cct agt gtg cca gat tct gca tct cct gct gat 156
 Lys Val Lys Arg Lys Pro Ser Val Pro Asp Ser Ala Ser Pro Ala Asp
 15 20 25 30
 gat agt ttt gtt gac cca ggg gaa cgt ctc tat gac ctc aac atg ccc 204
 Asp Ser Phe Val Asp Pro Gly Glu Arg Leu Tyr Asp Leu Asn Met Pro
 35 40 45
 gct tat gtg aaa ttt aac tac atg gct gac a 235
 Ala Tyr Val Lys Phe Asn Tyr Met Ala Asp
 50 55

<210> 1569
 <211> 548
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 153..548

<400> 1569
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 gacgccaaaa acgccttcag gaggctctgg agcggcagaa ggagttcgac ccaacaataa 120
 cagatgcaag tctgtsgctc ccaagcagaa ga atg caa aat gac aca gca gaw 173
 Met Gln Asn Asp Thr Ala Xaa
 1 5
 aat gaa act acc gag aag gaa gmm aaa agt gaa agt cgc caa gaa aga 221
 Asn Glu Thr Thr Glu Lys Glu Xaa Lys Ser Glu Ser Arg Gln Glu Arg
 10 15 20
 tac gag ata gag gam mca gaa aca gtc acc aag tcc tac cag aag aat 269
 Tyr Glu Ile Glu Xaa Xaa Glu Thr Val Thr Lys Ser Tyr Gln Lys Asn
 25 30 35
 gat tgg agg gat gct gaa gaa aac aag aaa gaa gac aag gaa aag gag 317
 Asp Trp Arg Asp Ala Glu Glu Asn Lys Lys Glu Asp Lys Glu Lys Glu
 40 45 50 55
 gag gag gaa gag gag aag cca aag cga ggg agc att gga gaa aat cag 365
 Glu Glu Glu Glu Glu Lys Pro Lys Arg Gly Ser Ile Gly Glu Asn Gln
 60 65 70
 gta gag gtg atg gtg gaa gag aaa aca act gaa agc cag gag gaa aca 413
 Val Glu Val Met Val Glu Glu Lys Thr Thr Glu Ser Gln Glu Glu Thr
 75 80 85
 gtg gta atg tca tta aaa aat ggg cag atc agt tca gaa gag cct aaa 461
 Val Val Met Ser Leu Lys Asn Gly Gln Ile Ser Ser Glu Glu Pro Lys
 90 95 100

caa gag gag gag agg gaa caa ggt tca gat gag att tcc cat cat gaa	509
Gln Glu Glu Glu Arg Glu Gln Gly Ser Asp Glu Ile Ser His His Glu	
105 110 115	
aag atg gaa gag gaa gac aag gaa aga gct gag gca gag	548
Lys Met Glu Glu Glu Asp Lys Glu Arg Ala Glu Ala Glu	
120 125 130	

<210> 1570
 <211> 492
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 175..492

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agaatattag gcgtagtttt ccagtttttg gcaaagcgga aatacttaag gcccctgggt	120
tgactggggt ctttgtttta tctaccggct tctgctttac gacaggtcac aaac atg	177
	Met
	1
tca gac aaa agt gaa tta aag gct gag ttg gaa cgt aag aag cag cga	225
Ser Asp Lys Ser Glu Leu Lys Ala Glu Leu Glu Arg Lys Lys Gln Arg	
5 10 15	
ctg gcc caa atc aga gag gaa aag aag aga aaa gaa gaa gaa agg aaa	273
Leu Ala Gln Ile Arg Glu Glu Lys Lys Arg Lys Glu Glu Glu Arg Lys	
20 25 30	
aaa aaa gaa aca gac cag aag aag gaa gct gtt gct cct gtg caa gaa	321
Lys Lys Glu Thr Asp Gln Lys Lys Glu Ala Val Ala Pro Val Gln Glu	
35 40 45	
gaa tca gat ctt gaa aaa aaa agg aga gaa gct gaa gca ttg ctt caa	369
Glu Ser Asp Leu Glu Lys Lys Arg Arg Glu Ala Glu Ala Leu Leu Gln	
50 55 60 65	
agc atg ggg cta act cca gaa tcc ccc att gtc cct cct cct atg tct	417
Ser Met Gly Leu Thr Pro Glu Ser Pro Ile Val Pro Pro Pro Met Ser	
70 75 80	
cca tcc tcc aaa tct gtg agc act cca agt gaa gct gga agc aag act	465
Pro Ser Ser Lys Ser Val Ser Thr Pro Ser Glu Ala Gly Ser Lys Thr	
85 90 95	
ctg gag atg gcg ccg tgg gat cta gac	492
Leu Glu Met Ala Pro Trp Asp Leu Asp	
100 105	

<210> 1571
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 <212> DNA
 <213> Homo sapiens

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 <222> 26..523

[illegible]

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<210> 1572
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<212> DNA
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gaggttcttgg ctcaagtgcac ccactctggg agagcgtgga cctggttcct gggggcgatc     120
gmcagtcacc  catcaacatt cggtggaggg acagtgttta tgatcccggc ttaaaaccac      180
tgaccatctc  tt atg acc  cag cca cct gcc tcc acg tct gga ata atg ggt      231
              Met Thr Gln Pro Pro Ala Ser Thr Ser Gly Ile Met Gly
              1              5              10
act ctt tcc tcg tgg aat ttg aag att cta cag ata aat cag ctg cac      279

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SECRET

[illegible]

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<220>  
<221> CDS  
<222> 54..497
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1056

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Arg Lys Trp Arg Val Lys Ser Ala Leu Gly Ala Met Gly Gln Trp Gln	
50 55 60 65	
ctt gaa gta gga gac cca gcg ccc cta gga gca ggg aac ctg ggg cct	296
Leu Glu Val Gly Asp Pro Ala Pro Leu Gly Ala Gly Asn Leu Gly Pro	
70 75 80	
gaa ctc atc aag gaa agc aat gcc aat cct atc ttc atg cgc aag gac	344
Glu Leu Ile Lys Glu Ser Asn Ala Asn Pro Ile Phe Met Arg Lys Asp	
85 90 95	
acc aag atg agt ttc cag tgg cgg att cga aac ctc ccc tat cct aag	392
Thr Lys Met Ser Phe Gln Trp Arg Ile Arg Asn Leu Pro Tyr Pro Lys	
100 105 110	
gat gtc tat agt gtc tct gtg gac cag aag gag cgc tgc atc att gtc	440
Asp Val Tyr Ser Val Ser Val Asp Gln Lys Glu Arg Cys Ile Ile Val	
115 120 125	
aga aca acc aac aag aag tac tac aag aag ttc tcc att cct gat cta	488
Arg Thr Thr Asn Lys Lys Tyr Tyr Lys Lys Phe Ser Ile Pro Asp Leu	
130 135 140 145	
gat aga cac c	498
Asp Arg His	
<210> 1576	
<211> 533	
<212> DNA	
<213> Homo sapiens	
<220>	
<221> CDS	
<222> 49..531	
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Met Leu Lys	
1	
cat ctc cac aat ggt gca agg atc aca gtg cag atg cca cct aca atc	105
His Leu His Asn Gly Ala Arg Ile Thr Val Gln Met Pro Pro Thr Ile	
5 10 15	
gag ggc cac tgg gtc tcc aca ggc tgt gaa gta agg tca ggc cca gag	153
Glu Gly His Trp Val Ser Thr Gly Cys Glu Val Arg Ser Gly Pro Glu	
20 25 30 35	
ttc atc aca agg tcc tac aga ttc tac cac aat aac acc ttc aag gcc	201
Phe Ile Thr Arg Ser Tyr Arg Phe Tyr His Asn Asn Thr Phe Lys Ala	
40 45 50	
tac caa ttt tat tat ggc agc aac cgg tgc aca aat ccc act tat act	249
Tyr Gln Phe Tyr Tyr Gly Ser Asn Arg Cys Thr Asn Pro Thr Tyr Thr	
55 60 65	
ctc atc atc cgg ggc aag atc cgc ctc cgc cag gcc tcc tgg atc atc	297
Leu Ile Ile Arg Gly Lys Ile Arg Leu Arg Gln Ala Ser Trp Ile Ile	
70 75 80	
cga ggg ggc acg gaa gcc gac tac cag ctg cac aac gtc cag gtg atc	345
Arg Gly Gly Thr Glu Ala Asp Tyr Gln Leu His Asn Val Gln Val Ile	
85 90 95	
tgc cac aca gag gcg gtg gcc gag aag ctc ggc cag cag gtg aac cgc	393

Cys	His	Thr	Glu	Ala	Val	Ala	Glu	Lys	Leu	Gly	Gln	Gln	Val	Asn	Arg	
100					105					110					115	
aca	tgc	ccg	ggc	ttc	ctc	gca	gac	ggg	ggg	ccc	tgg	gtg	cag	gac	gtg	441
Thr	Cys	Pro	Gly	Phe	Leu	Ala	Asp	Gly	Gly	Pro	Trp	Val	Gln	Asp	Val	
				120					125					130		
gcc	tat	gac	ctc	tgg	cga	gag	gag	aac	ggc	tgt	gag	tgc	acc	aag	gcc	489
Ala	Tyr	Asp	Leu	Trp	Arg	Glu	Glu	Asn	Gly	Cys	Glu	Cys	Thr	Lys	Ala	
			135					140					145			
gtg	aac	ttt	gcc	atg	cat	gaa	ctt	cag	ctc	atc	cgg	gtg	gag	aa		533
Val	Asn	Phe	Ala	Met	His	Glu	Leu	Gln	Leu	Ile	Arg	Val	Glu			
		150					155					160				

<210> 1577

<211> 560

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 297..560

<400> 1577

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tttgggcgga	tagagggggc	gcgcaaagta	ttaagggaca	ataatggccg	ctttcaaggt		180
gtggattttg	gctccttgag	cctgtctgag	cgaggggtgg	cagcgccggc	gccccagaat		240
ccgggacaga	aggggtccaa	gagtcgcgct	tggtgagaga	aatcccagat	cctgtg atg		299
					Met		
					1		
ggg gac acc agt gag gat gcc tcg atc cat cga ttg gaa ggc act gat						347	
Gly Asp Thr Ser Glu Asp Ala Ser Ile His Arg Leu Glu Gly Thr Asp							
	5		10		15		
ctg gac tgt cag gtt ggt ggt ctt att tgc aag tcc aaa agt gcg gcc						395	
Leu Asp Cys Gln Val Gly Gly Leu Ile Cys Lys Ser Lys Ser Ala Ala							
	20		25		30		
agc gag cag cat gtc ttc aag gct cct gct ccc cgc cct tca tta ctc						443	
Ser Glu Gln His Val Phe Lys Ala Pro Ala Pro Arg Pro Ser Leu Leu							
	35		40		45		
gga ctg gac ttg ctg gct tcc ctg aaa cgg aga gag cga gag gag aag						491	
Gly Leu Asp Leu Leu Ala Ser Leu Lys Arg Arg Glu Arg Glu Glu Lys							
	50		55		60		65
gac gat ggg gag gac aag aag aag tcc aaa gtc tcc tcc tac aag gac						539	
Asp Asp Gly Glu Asp Lys Lys Lys Ser Lys Val Ser Ser Tyr Lys Asp							
	70		75		80		
tgg gaa gag agc aag gat gac						560	
Trp Glu Glu Ser Lys Asp Asp							
	85						

<210> 1578

<211> 332

<212> DNA

<213> Homo sapiens

SECRET

aagcgcgagg	agaaa	atg	gcg	gcg	atg	gcg	gtc	ggg	ggt	gct	ggg	ggg	agc		52	
			Met	Ala	Ala	Met	Ala	Val	Gly	Gly	Ala	Gly	Gly	Ser		
		1					5				10					
cgc	gtg	tcc	agc	ggg	agg	gac	ctg	aat	tgc	gtc	ccc	gaa	ata	gct	gac	100
Arg	Val	Ser	Ser	Gly	Arg	Asp	Leu	Asn	Cys	Val	Pro	Glu	Ile	Ala	Asp	
		15					20					25				
aca	cta	ggg	gct	gtg	gcc	aag	cag	ggg	ttt	gat	ttc	ctc	tgc	atk	cct	148
Thr	Leu	Gly	Ala	Val	Ala	Lys	Gln	Gly	Phe	Asp	Phe	Leu	Cys	Xaa	Pro	
		30				35					40					
gtc	ttc	cat	ccg	cgt	ttc	aag	agg	gag	ttc	att	cag	gaa	cct	gct	aag	196
Val	Phe	His	Pro	Arg	Phe	Lys	Arg	Glu	Phe	Ile	Gln	Glu	Pro	Ala	Lys	
		45			50					55				60		
aat	cgg	ccc	ggt	ccc	cag	aca	cga	tca	gac	cta	ctg	ctg	tca	gga	agg	244
Asn	Arg	Pro	Gly	Pro	Gln	Thr	Arg	Ser	Asp	Leu	Leu	Leu	Ser	Gly	Arg	
			65				70					75				
gac	tgg	aat	acg	cta	att	gtg	gga	aag	ctt	tct	cca	tgg	att	cgt	cca	292
Asp	Trp	Asn	Thr	Leu	Ile	Val	Gly	Lys	Leu	Ser	Pro	Trp	Ile	Arg	Pro	
		80					85					90				
gac	tca	aaa	gtg	gag	aag	att	cgc	agg	aac	tcc	gag	gcg	g			332
Asp	Ser	Lys	Val	Glu	Lys	Ile	Arg	Arg	Asn	Ser	Glu	Ala				
		95					100				105					

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<221> CDS  
<222> 162..389
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catacggacc	ggattgtttt	cgtctggcca	gtgtccccgg	agcttggttg	cgatacagag	120
agcacctcgg	aagctgaggc	agctggtact	tgacagagag	g atg gcg ctg tcg acc		176
				Met Ala Leu Ser Thr		
				1	5	
ata gtc tcc cag agg aag cag ata aag cgg aag gct ccc cgt ggc ttt						224
Ile Val Ser Gln Arg Lys Gln Ile Lys Arg Lys Ala Pro Arg Gly Phe						
	10		15		20	
cta aag cga gtc ttc aag cga aag aag cct caa ctt cgt ctg gag aaa						272
Leu Lys Arg Val Phe Lys Arg Lys Lys Pro Gln Leu Arg Leu Glu Lys						
	25		30		35	
agt ggt gac tta ttg gtc cat ctg aac tgt tta ctg ttt gtt cat cga						320
Ser Gly Asp Leu Leu Val His Leu Asn Cys Leu Leu Phe Val His Arg						
	40		45		50	
tta gca gaa gag tcc agg aca aac gct tgt gcg agt raa tgt aqa qtc						368

Leu Ala Glu Glu Ser Arg Thr Asn Ala Cys Ala Ser Xaa Cys Arg Val
 55 60 65
 att aac aag gag cat gta ctg c
 Ile Asn Lys Glu His Val Leu
 70 75

390

<210> 1580
 <211> 294
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 112..294

<400> 1580
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 Met Val
 1
 cgg act aaa gca gac agt gtt cca ggc act tac aga aaa gtg gtg gct 165
 Arg Thr Lys Ala Asp Ser Val Pro Gly Thr Tyr Arg Lys Val Val Ala
 5 10 15
 gct cga gcc ccc aga aag gtg ctt ggt tct tcc acc tct gcc act aat 213
 Ala Arg Ala Pro Arg Lys Val Leu Gly Ser Ser Thr Ser Ala Thr Asn
 20 25 30
 tcg aca tca gtt tca tcg agg aaa gct gaa aat aaa tat gca gga ggg 261
 Ser Thr Ser Val Ser Ser Arg Lys Ala Glu Asn Lys Tyr Ala Gly Gly
 35 40 45 50
 aac ccc gtt tgc gtg cgc cca act ccc aag tgg 294
 Asn Pro Val Cys Val Arg Pro Thr Pro Lys Trp
 55 60

<210> 1581
 <211> 488
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 308..487

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 gcgtgcgttt gtcgtgtaag ggtcattcct ggggtttgga gtgggggaac aaatcaatgt 180
 ggctgttttt ccgtggaaag aattcccaact gcagtgtccc ggagcctgcg tgtggtgggc 240
 aagctcctca aatrgtatct cacagggaat aggggagtct tgaaaacgca gcttcggcag 300
 taggaac atg aac ctc tta cct aaa agt tcc agg gag ttt ggc tcc gtt 349
 Met Asn Leu Leu Pro Lys Ser Ser Arg Glu Phe Gly Ser Val
 1 5 10
 gac tat tgg gag aag ttc ttc cag cag cga gga aag aaa gct ttc gag 397

Asp	Tyr	Trp	Glu	Lys	Phe	Phe	Gln	Gln	Arg	Gly	Lys	Lys	Ala	Phe	Glu	
15					20				25					30		
tgg	tat	gga	cct	acc	tgg	aac	tst	gcg	ggg	tgc	tac	ata	aat	ata	tca	445
Trp	Tyr	Gly	Pro	Thr	Trp	Asn	Xaa	Ala	Gly	Cys	Tyr	Ile	Asn	Ile	Ser	
				35				40					45			
agc	cag	gga	aaa	ngt	gct	ggt	gat	tgg	gtr	tgg	cac	tca	gaa	c		488
Ser	Gln	Gly	Lys	Xaa	Ala	Gly	Asp	Trp	Val	Trp	His	Ser	Glu			
			50					55					60			

<210> 1582
 <211> 455
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 78..455

<400> 1582																
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ggcacttggt	gggcaga	atg tca cac	ctg ccg atg	aaa ctc	ctg cgt aag											110
		Met Ser His	Leu Pro Met	Lys Leu Leu	Arg Lys											
		1	5	10												
aag atc gag	aag cgg aac	ctc aaa ttg	cgg cag cgg	aac cta aag	ttt											158
Lys Ile Glu	Lys Arg Asn	Leu Lys Leu	Arg Gln Arg	Asn Leu Lys	Phe											
	15	20	25													
cag ggg gcc	tca aat ctg	acc cta tcg	gaa act caa	aat gga gat	gta											206
Gln Gly Ala	Ser Asn Leu	Thr Leu Ser	Glu Thr Gln	Asn Gly Asp	Val											
	30	35	40													
tct gaa gaa	aca atg gra	agt aga aag	gtt aaa aaa	tca aaa caa	aag											254
Ser Glu Glu	Thr Met Xaa	Ser Arg Lys	Val Lys Lys	Ser Lys Gln	Lys											
	45	50	55													
ccc atg aat	gtg ggc tta	tca gaa act	caa aat gga	ggc atg tct	caa											302
Pro Met Asn	Val Gly Leu	Ser Glu Thr	Gln Asn Gly	Gly Gly Met	Ser Gln											
	60	65	70	75												
gaa gca gtg	gga aat ata	aaa gtt aca	aag tct ccc	cag aaa tcc	act											350
Glu Ala Val	Gly Asn Ile	Lys Val Thr	Lys Ser Pro	Gln Lys Ser	Thr											
	80	85	90													
gta tta acc	aat gga gaa	gca gca atg	cag tct tcc	aat tca gaa	tca											398
Val Leu Thr	Asn Gly Glu	Ala Ala Met	Gln Ser Ser	Asn Ser Glu	Ser											
	95	100	105													
aaa aag raa	aag aag aaa	aag aga aaa	atg gtg aat	gat gct gag	cct											446
Lys Lys Xaa	Lys Lys Lys	Lys Arg Lys	Met Val Asn	Asp Ala Glu	Pro											
	110	115	120													
gat acg aaa																455
Asp Thr Lys																
	125															

<210> 1583
 <211> 293
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 125..292

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 gttacccgcc acacacgtcg ccgctgggga ctgggaaatc agggcatcgg agagtgccac 120
 atta atg gat gcc awg gct agt cca ggg aaa gat aac tat aga atg aaa 169
 Met Asp Ala Xaa Ala Ser Pro Gly Lys Asp Asn Tyr Arg Met Lys
 1 5 10 15
 agt tat aag aat aaa gcc cta aat cct caa gag atg cgt aga cga aga 217
 Ser Tyr Lys Asn Lys Ala Leu Asn Pro Gln Glu Met Arg Arg Arg Arg
 20 25 30
 gaa gaa gaa gga ata cag ctt aga aaa caa aaa aga gaa gaa cag ttg 265
 Glu Glu Glu Gly Ile Gln Leu Arg Lys Gln Lys Arg Glu Glu Gln Leu
 35 40 45
 ttc aaa cgc aga aat gtc tat ttg ccc a 293
 Phe Lys Arg Arg Asn Val Tyr Leu Pro
 50 55

<210> 1584
 <211> 399
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 89..397

<400> 1584
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 acccgggctg gaaggcaggg catcagct atg gaa caa cct ggg cag gat ccc 112
 Met Glu Gln Pro Gly Gln Asp Pro
 1 5
 acc tca gac gac gtc atg gac tcg ttc ctg gaa aag ttc cag agc cag 160
 Thr Ser Asp Asp Val Met Asp Ser Phe Leu Glu Lys Phe Gln Ser Gln
 10 15 20
 cct tac cgt ggc ggc ttt cat gag gac cag tgg gag aag gaa ttt gaa 208
 Pro Tyr Arg Gly Gly Phe His Glu Asp Gln Trp Glu Lys Glu Phe Glu
 25 30 35 40
 aag gtc ccc cta ttt atg wcg aga gcg cca tca gaa att gat ccc agg 256
 Lys Val Pro Leu Phe Met Xaa Arg Ala Pro Ser Glu Ile Asp Pro Arg
 45 50 55
 gag aat cct gac ttg gct tgt ctc cag tca att att ttt gat gag gag 304
 Glu Asn Pro Asp Leu Ala Cys Leu Gln Ser Ile Ile Phe Asp Glu Glu
 60 65 70
 cgt tct cca gaa gaa cag gcc aag acc tat aaa gat gag ggc aat gat 352
 Arg Ser Pro Glu Glu Gln Ala Lys Thr Tyr Lys Asp Glu Gly Asn Asp
 75 80 85
 tac ttt aaa gaa aaa gac tac aag aaa gct gta att tca tac act ga 399
 Tyr Phe Lys Glu Lys Asp Tyr Lys Lys Ala Val Ile Ser Tyr Thr
 90 95 100

<210> 1585
 <211> 426
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 200..424

<400> 1585
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 cgaaggtttc catgtcagag gccgatggag aactgaagat tgccacctac gcacaaaggc 120
 cattgagaca cttcgtgtag ctggaagaca ccaacttctt gacaggagct ttatttcatt 180
 tgggatttca agtttacag atg gta tct tct caa aag ttg gaa aaa cct ata 232
 Met Val Ser Ser Gln Lys Leu Glu Lys Pro Ile
 1 5 10
 gag atg ggc agt agc gaa ccc ctt ccc atc gca gat ggt gac agg agg 280
 Glu Met Gly Ser Ser Glu Pro Leu Pro Ile Ala Asp Gly Asp Arg Arg
 15 20 25
 agg aag aag aag cgg agg ggc cgg gcc act gac tcc ttg cca gga aag 328
 Arg Lys Lys Lys Arg Arg Gly Arg Ala Thr Asp Ser Leu Pro Gly Lys
 30 35 40
 ttt gaa gat atg tac aag ctg acc tct gaa ttg ctt gga gag gga gcc 376
 Phe Glu Asp Met Tyr Lys Leu Thr Ser Glu Leu Leu Gly Glu Gly Ala
 45 50 55
 tat gcc aaa gtt caa ggt gcc gtg agc cta cag aat ggc aaa gag tat 424
 Tyr Ala Lys Val Gln Gly Ala Val Ser Leu Gln Asn Gly Lys Glu Tyr
 60 65 70 75
 gc 426

<210> 1586
 <211> 556
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 151..555

<400> 1586
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 gatattagca agcttaggaa tacacttcgc tttcttttgg gaaatgtggc tgatttcaac 120
 ccagaaacag attccatccc tgtaaacgat atg tat gtc ata gac cag tac atg 174
 Met Tyr Val Ile Asp Gln Tyr Met
 1 5
 cta cac tta ctg cag gat ttg gca aac aag att acc gaa tta tac aaa 222
 Leu His Leu Leu Gln Asp Leu Ala Asn Lys Ile Thr Glu Leu Tyr Lys
 10 15 20
 caa tat gat ttt gga aaa gtt gtt cgg ctg tta cgg acg ttt tat acc 270
 Gln Tyr Asp Phe Gly Lys Val Val Arg Leu Leu Arg Thr Phe Tyr Thr
 25 30 35 40

aga gag ctc tct aac ttt tat ttc agt ata atc aaa gat agg ctc tat	318
Arg Glu Leu Ser Asn Phe Tyr Phe Ser Ile Ile Lys Asp Arg Leu Tyr	
45 50 55	
tgt gaa aag gaa aat gac ccc aaa cga cgc tct tgt cag act gca tta	366
Cys Glu Lys Glu Asn Asp Pro Lys Arg Arg Ser Cys Gln Thr Ala Leu	
60 65 70	
ggt gaa att ttg gat gta ata gtt cgt tct ttt gct ccc att ctt cct	414
Val Glu Ile Leu Asp Val Ile Val Arg Ser Phe Ala Pro Ile Leu Pro	
75 80 85	
cac ctg gct gaa gag gtg ttc cag cac ata cct tat att ama gag ccc	462
His Leu Ala Glu Glu Val Phe Gln His Ile Pro Tyr Ile Xaa Glu Pro	
90 95 100	
wwg agt gtt ttc cgt act ggg cgg att agt act agt tct atc tgg gaa	510
Xaa Ser Val Phe Arg Thr Gly Arg Ile Ser Thr Ser Ser Ile Trp Glu	
105 110 115 120	
aag ccc ggg ttg gaa gaa gct gtg gag agt gcg tgt gca atg cga k	556
Lys Pro Gly Leu Glu Glu Ala Val Glu Ser Ala Cys Ala Met Arg	
125 130 135	

<210> 1587
 <211> 457
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 110..457

<400> 1587	
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ttgctgtgct ccaactccct cagggcctgt gttgccgcac tctgctgct atg agc ttc	118
Met Ser Phe	
1	
ctc aaa agt ttc ccg ccg cct ggg cca gcg gag ggg ctc ctg cgg cag	166
Leu Lys Ser Phe Pro Pro Pro Gly Pro Ala Glu Gly Leu Leu Arg Gln	
5 10 15	
cag cca gac act gag gct gtg ctg aac ggg aag ggc ctc ggc act ggt	214
Gln Pro Asp Thr Glu Ala Val Leu Asn Gly Lys Gly Leu Gly Thr Gly	
20 25 30 35	
acc ctt tac atc gct gag agc cgc ctg tct tgg tta gat ggc tct gga	262
Thr Leu Tyr Ile Ala Glu Ser Arg Leu Ser Trp Leu Asp Gly Ser Gly	
40 45 50	
tta gga ttc tca ctg gaa tac ccc acc att agt tta cat gca tta tcc	310
Leu Gly Phe Ser Leu Glu Tyr Pro Thr Ile Ser Leu His Ala Leu Ser	
55 60 65	
agg gac cga agt gac tgt cta gga gag cat ttg tat gtt atg gtg aat	358
Arg Asp Arg Ser Asp Cys Leu Gly Glu His Leu Tyr Val Met Val Asn	
70 75 80	
gcc aaa ttt gaa gaa gaa tca aaa gaa cct gtt gct gat gaa gaa gag	406
Ala Lys Phe Glu Glu Glu Ser Lys Glu Pro Val Ala Asp Glu Glu Glu	
85 90 95	
gaa gac agt gat gat gat gtt gaa cct att act gaa ttt aga ttt gtg	454
Glu Asp Ser Asp Asp Asp Val Glu Pro Ile Thr Glu Phe Arg Phe Val	

Val	Lys	Pro	Lys	Tyr	Lys	Gly	Arg	Ser	Thr	Ile	Asn	Pro	Ser	Lys	Ala	
			5					10					15			
agc	aca	aac	cca	gat	cga	gtg	cag	gga	gca	gga	ggc	caa	aac	atg	agg	212
Ser	Thr	Asn	Pro	Asp	Arg	Val	Gln	Gly	Ala	Gly	Gly	Gln	Asn	Met	Arg	
		20					25					30				
gac	cgg	gcc	acc	atc	cgg	cgc	ctg	aat	atg	tat	agg	caa	aag	gag	cgc	260
Asp	Arg	Ala	Thr	Ile	Arg	Arg	Leu	Asn	Met	Tyr	Arg	Gln	Lys	Glu	Arg	
	35					40					45					
agg	aac	agt	cgt	ggc	aaa	ata	att	aaa	ccc							290
Arg	Asn	Ser	Arg	Gly	Lys	Ile	Ile	Lys	Pro							
50					55											

<210> 1590

<211> 374

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 133..372

<400> 1590

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gtctt	cccc	ggcct	gcgtc	cgagt	ctccg	ccgct	gcggg	cccgt	ccga	cgcgga	agat				120	
ctgact	gcag	cc	atg	agc	agc	aat	gag	tgc	ttc	aag	tgt	gga	cga	tct	ggc	171
				Met	Ser	Ser	Asn	Glu	Cys	Phe	Lys	Cys	Gly	Arg	Ser	Gly
			1				5					10				
cac	tgg	gcc	cgg	gaa	tgt	cct	act	ggc	gga	ggc	ygt	sgt	cgt	gga	atg	219
His	Trp	Ala	Arg	Glu	Cys	Pro	Thr	Gly	Gly	Gly	Xaa	Xaa	Arg	Gly	Met	
	15					20				25						
aga	agc	cgt	ggc	aga	ggc	ttc	cag	ttt	gtt	tcc	tgc	tct	ctt	cca	gat	267
Arg	Ser	Arg	Gly	Arg	Gly	Phe	Gln	Phe	Val	Ser	Ser	Ser	Leu	Pro	Asp	
	30				35				40				45			
att	tgt	tat	cgc	tgt	ggc	gag	tct	ggc	cat	ctt	gcc	aag	gat	tgt	gat	315
Ile	Cys	Tyr	Arg	Cys	Gly	Glu	Ser	Gly	His	Leu	Ala	Lys	Asp	Cys	Asp	
			50					55					60			
ctt	cag	gag	gat	gst	aag	tat	tta	aca	ctt	cct	ttt	cat	acc	cct	cta	363
Leu	Gln	Glu	Asp	Xaa	Lys	Tyr	Leu	Thr	Leu	Pro	Phe	His	Thr	Pro	Leu	
			65					70					75			
gag	ctt	gga	ga													374
Glu	Leu	Gly														
			80													

<210> 1591

<211> 697

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 488..697

<400> 1591

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ctgactgcag ccatgagcag caatgagtg tccaagtgtg gacgatctgg cactggggcc 180
cggaatgtc ctantggtgk cggccgtggt cgtggaatga gaagccgtgg cagaggtggt 240
tttacctcg atagaggttt ccagtttgtt tcctcgtctc ttccagatat ttgttatcgc 300
tgtggtgnng tctggtcac ttgccaagga ttgtgatctt caggaggatg cctgctakam 360
cygcgtgtgg cgaggcaag gacctcaaaa ataaacagcc tctaccttgc gagccgtctt 420
ccccaggcct gcgtccgagt ctccgccgct gcggggccgc tccgacgcgg aagatctgac 480
tgcagcc atg agc agc aat gag tgc ttc aag tgt gga cga tct ggc cac 529
Met Ser Ser Asn Glu Cys Phe Lys Cys Gly Arg Ser Gly His
1 5 10
tgg gcc cgg gaa tgt cct act ggt gga ggc cgt sgt cgt gga atg aga 577
Trp Ala Arg Glu Cys Pro Thr Gly Gly Gly Arg Xaa Arg Gly Met Arg
15 20 25 30
agc cgt ggc aga ggt ttc cag ttt gtt tcc tcg tct ctt cca gat att 625
Ser Arg Gly Arg Gly Phe Gln Phe Val Ser Ser Ser Leu Pro Asp Ile
35 40 45
tgt tat cgc tgt ggt gag tct ggt cat ctt gcc aag gat tgt gat ctt 673
Cys Tyr Arg Cys Gly Glu Ser Gly His Leu Ala Lys Asp Cys Asp Leu
50 55 60
cag gag gat gct gct ata act gcg 697
Gln Glu Asp Ala Ala Ile Thr Ala
65 70

<210> 1592

<211> 439

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 233..439

<400> 1592

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gattgttgcg cctctgctct gaagaaagt ctgtctggct ccaactccag ttctttcccc 120
tgagcagcgc ctggaaccta acccttccca ctctgtcacc ttctcgatcc cgccggcgct 180
ttagagccgc agtccagtct tggatccttc agagcctcag ccactagctg cg atg cat 238
Met His
1
gtg atc aag cga gat ggc cgc caa gaa cga gtc atg ttt gac aaa att 286
Val Ile Lys Arg Asp Gly Arg Gln Glu Arg Val Met Phe Asp Lys Ile
5 10 15
aca tct cga atc cag aag ctt tgt tat gga ctc aat atg gat ttt gtt 334
Thr Ser Arg Ile Gln Lys Leu Cys Tyr Gly Leu Asn Met Asp Phe Val
20 25 30
gat cct gct cag atc acc atg aaa gta atc caa ggc ttg tac agt ggg 382
Asp Pro Ala Gln Ile Thr Met Lys Val Ile Gln Gly Leu Tyr Ser Gly
35 40 45 50
gtc acc aca gtg gaa cta gat act ttg gct gct gaa aca gct gca acc 430
Val Thr Thr Val Glu Leu Asp Thr Leu Ala Ala Glu Thr Ala Ala Thr
55 60 65

ttg act act
Leu Thr Thr

439

<210> 1593
<211> 530
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 128..529

<400> 1593
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ccttctggat tcaagaagac gaggccatt cccctcaggc tcacctgtta ctcggcctcc 120
cagaaag atg gat agg mga aat gac tac ggr tat agg gtg cyt cta ttt 169
Met Asp Arg Arg Asn Asp Tyr Gly Tyr Arg Val Xaa Leu Phe
1 5 10
cag ggc cct ctg cct ccc ccg ggg agc ctg ggg ctt ccc ttc cct cca 217
Gln Gly Pro Leu Pro Pro Pro Gly Ser Leu Gly Leu Pro Phe Pro Pro
15 20 25 30
gat ata cag act gag acc aca gaa gag gac agt gtc ctg ctg atg cat 265
Asp Ile Gln Thr Glu Thr Thr Glu Glu Asp Ser Val Leu Leu Met His
35 40 45
acc ctg ttg gcg gca acc aag gac tcc ctg gcc atg gac cca cca gtt 313
Thr Leu Leu Ala Ala Thr Lys Asp Ser Leu Ala Met Asp Pro Pro Val
50 55 60
gtc aac cgg cct aag nna wgc aag acc aag aag gcc csk rta aag act 361
Val Asn Arg Pro Lys Xaa Xaa Lys Thr Lys Lys Ala Xaa Xaa Lys Thr
65 70 75
att act arg gct gca cct gct gcg nct cca gtc cca gct gcc aat gag 409
Ile Thr Xaa Ala Ala Pro Ala Ala Xaa Pro Val Pro Ala Ala Asn Glu
80 85 90
att gcc acc aac aag ccc aaa ata act tgg cag gct tta aac ctg cca 457
Ile Ala Thr Asn Lys Pro Lys Ile Thr Trp Gln Ala Leu Asn Leu Pro
95 100 105 110
gtc att acc cag atc agc cag gct tta cct acc act gag gta acc aat 505
Val Ile Thr Gln Ile Ser Gln Ala Leu Pro Thr Thr Glu Val Thr Asn
115 120 125
act cag gct tct tca gtc act gct c 530
Thr Gln Ala Ser Ser Val Thr Ala
130

<210> 1594
<211> 818
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 113..817

004220" 66667560

<400> 1594

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ccttctggat tcaagaagac gaggctcacc tggtactcgg cctcccagaa ag atg gat      118
                                   Met Asp
                                   1
agg aga aat gac tac gga tat agg gtg cct cta ttt cag ggc cct ctg      166
Arg Arg Asn Asp Tyr Gly Tyr Arg Val Pro Leu Phe Gln Gly Pro Leu
      5      10      15
cct ccc ccg ggg agc ctg ggg ctt ccc ttc cct cca gat ata cag act      214
Pro Pro Pro Gly Ser Leu Gly Leu Pro Phe Pro Pro Asp Ile Gln Thr
      20      25      30
gag acc aca gaa gag gac agt gtc ctg ctg atg cat acc ctg ttg gcg      262
Glu Thr Thr Glu Glu Asp Ser Val Leu Leu Met His Thr Leu Leu Ala
      35      40      45      50
gca acc aag gac tcc ctg gcc atg gac cca cca gtt gtc aac cgg cct      310
Ala Thr Lys Asp Ser Leu Ala Met Asp Pro Pro Val Val Asn Arg Pro
      55      60      65
aag aaa aga yac aag gag agg ctt gga gag agc aga cgc ctt ctg gat      358
Lys Lys Arg Xaa Lys Glu Arg Leu Gly Glu Ser Arg Arg Leu Leu Asp
      70      75      80
tca aga aga cga ggc cca ttc ccc tca ggc tca cct gtt acy cgg cct      406
Ser Arg Arg Arg Gly Pro Phe Pro Ser Gly Ser Pro Val Thr Arg Pro
      85      90      95
ccc aga aag atg gat agg mga aat gac tac ggr tat agg gtg cyt cta      454
Pro Arg Lys Met Asp Arg Arg Asn Asp Tyr Gly Tyr Arg Val Xaa Leu
      100      105      110
ttt cag ggc cct ctg cct ccc ccg ggg agc ctg ggg ctt ccc ttc cct      502
Phe Gln Gly Pro Leu Pro Pro Gly Ser Leu Gly Leu Pro Phe Pro
      115      120      125      130
cca gat ata cag act gag acc aca gaa gag gac agt gtc ctg ctg atg      550
Pro Asp Ile Gln Thr Glu Thr Thr Glu Glu Asp Ser Val Leu Leu Met
      135      140      145
cat acc ctg ttg gcg gca acc aag gac tcc ctg gcc atg gac cca cca      598
His Thr Leu Leu Ala Ala Thr Lys Asp Ser Leu Ala Met Asp Pro Pro
      150      155      160
gtt gtc aac cgg cct aag nna wgc aag acc aag aag gcc csk rta aag      646
Val Val Asn Arg Pro Lys Xaa Xaa Lys Thr Lys Lys Ala Xaa Xaa Lys
      165      170      175
act att act arg gct gca cct gct gcn nct cca gtc cca gct gcc aat      694
Thr Ile Thr Xaa Ala Ala Pro Ala Ala Xaa Pro Val Pro Ala Ala Asn
      180      185      190
gag att gcc acc aac aag ccc aaa ata act tgg cag gct tta aac ctg      742
Glu Ile Ala Thr Asn Lys Pro Lys Ile Thr Trp Gln Ala Leu Asn Leu
      195      200      205      210
cca gtc att acc cag atc agc cag gct tta cct acc act gag gta acc      790
Pro Val Ile Thr Gln Ile Ser Gln Ala Leu Pro Thr Thr Glu Val Thr
      215      220      225
aat act cag gct tct tca gtc act gct c
Asn Thr Gln Ala Ser Ser Val Thr Ala
      230      235

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<210> 1595

<211> 408

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 154..408

<400> 1595

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gcggctcgcg cctcctgctt caagagccca gcggtgagag ctggcctgcg gcacgcggcc 120
taatgccaga cagtaacagt ttggaggatc aag atg ttg acc aac ttg agg ata 174
Met Leu Thr Asn Leu Arg Ile
1 5
ttt gca atg agt cat cag aca ata ccc agt gtg tat att aat aat ata 222
Phe Ala Met Ser His Gln Thr Ile Pro Ser Val Tyr Ile Asn Asn Ile
10 15 20
tgc tgc tat aaa ata aga gca agt tta aaa aga tta aag cca cat gtg 270
Cys Cys Tyr Lys Ile Arg Ala Ser Leu Lys Arg Leu Lys Pro His Val
25 30 35
ccg ctt gga aga aat tgc agt tct cta cca ggc tta ata gga aat gat 318
Pro Leu Gly Arg Asn Cys Ser Ser Leu Pro Gly Leu Ile Gly Asn Asp
40 45 50 55
atc aaa tcc ctt cat tcc atc atc aat cct ccc ata gct aaa atc cgt 366
Ile Lys Ser Leu His Ser Ile Ile Asn Pro Pro Ile Ala Lys Ile Arg
60 65 70
aat att gga att atg gct cat att gat gca ggc aaa act acc 408
Asn Ile Gly Ile Met Ala His Ile Asp Ala Gly Lys Thr Thr
75 80 85

<210> 1596

<211> 481

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 126..479

<400> 1596

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caggg atg aac ctc gag ttg ctg gag tcc ttt ggg cag aac tat cca gag 170
Met Asn Leu Glu Leu Leu Glu Ser Phe Gly Gln Asn Tyr Pro Glu
1 5 10 15
gaa gct gat gga act ttg gat tgt atc agc atg gct ttg act tgc acc 218
Glu Ala Asp Gly Thr Leu Asp Cys Ile Ser Met Ala Leu Thr Cys Thr
20 25 30
ttt aac agg tgg ggc aya ctg ctt gca gtt ggc tgt aat gat ggc cga 266
Phe Asn Arg Trp Gly Xaa Leu Leu Ala Val Gly Cys Asn Asp Gly Arg
35 40 45
att gtc atc tgg gat ttc ttg aca aga ggc att gct aaa ata att agt 314
Ile Val Ile Trp Asp Phe Leu Thr Arg Gly Ile Ala Lys Ile Ile Ser
50 55 60

gca cac atc cat cca gtg tgt tct tta tgc tgg agc cga gat ggt cat	362
Ala His Ile His Pro Val Cys Ser Leu Cys Trp Ser Arg Asp Gly His	
65 70 75	
aaa ctc gtg agt gct tcc act gat aac ata gtg tca cag tgg gat gtt	410
Lys Leu Val Ser Ala Ser Thr Asp Asn Ile Val Ser Gln Trp Asp Val	
80 85 90 95	
ctt tca ggc gac tgt gas cag agg ttt cga ttc cct tca mcc atc tta	458
Leu Ser Gly Asp Cys Xaa Gln Arg Phe Arg Phe Pro Ser Xaa Ile Leu	
100 105 110	
aaa gtc caa tat cat cca cga ga	481
Lys Val Gln Tyr His Pro Arg	
115	

<210> 1597
 <211> 222
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 30..221

<400> 1597	
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Met Glu Pro Glu Glu Gly Thr Pro	
1 5	
ttg tgg cgg ctg cag aag ctg ccg gcc gag ctg ggc ccg cag ctt ctt	101
Leu Trp Arg Leu Gln Lys Leu Pro Ala Glu Leu Gly Pro Gln Leu Leu	
10 15 20	
cac aaa ata att gat ggc att tgt ggt cga gct tat cct gtg tac caa	149
His Lys Ile Ile Asp Gly Ile Cys Gly Arg Ala Tyr Pro Val Tyr Gln	
25 30 35 40	
gat tat cac act gtt tgg gaa tca gaa gaa tgg atg cac gtt tta gaa	197
Asp Tyr His Thr Val Trp Glu Ser Glu Glu Trp Met His Val Leu Glu	
45 50 55	
gak att gcc aaa ttt ttc aaa gcc a	222
Xaa Ile Ala Lys Phe Phe Lys Ala	
60	

<210> 1598
 <211> 298
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 23..298

<400> 1598	
agtcggcggc cggactggga ag atg gac gca gct act ctg acc tac gac act	52
Met Asp Ala Ala Thr Leu Thr Tyr Asp Thr	
1 5 10	

ctc cgg ttt gct gag ttt gaa gat ttt cct gag acc tca gag ccc gtt	100
Leu Arg Phe Ala Glu Phe Glu Asp Phe Pro Glu Thr Ser Glu Pro Val	
15 20 25	
tgg ata ctg ggt aga aaa tac agc att ttc aca gaa aag gac gag atc	148
Trp Ile Leu Gly Arg Lys Tyr Ser Ile Phe Thr Glu Lys Asp Glu Ile	
30 35 40	
ttg tct gat gtg gca tct aga ctt tgg ttt aca tac agg aaa aac ttt	196
Leu Ser Asp Val Ala Ser Arg Leu Trp Phe Thr Tyr Arg Lys Asn Phe	
45 50 55	
cca gcc att ggg ggg aca ggc ccc acc tcg gac aca ggc tgg ggc tgc	244
Pro Ala Ile Gly Gly Thr Gly Pro Thr Ser Asp Thr Gly Trp Gly Cys	
60 65 70	
atg ctg cgg tgt gga cag atg atc ttt gcc caa gcc ctg gtg tgc cgg	292
Met Leu Arg Cys Gly Gln Met Ile Phe Ala Gln Ala Leu Val Cys Arg	
75 80 85 90	
cac cta	298
His Leu	

<210> 1599
 <211> 454
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 15..452

<400> 1599	
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Met Ala Thr Gly Leu Ser Glu His His Asn Met Val	
1 5 10	
tgg gaa gtg aag aca aat cag atg cct aat gca gta cag aaa ctc ctg	98
Trp Glu Val Lys Thr Asn Gln Met Pro Asn Ala Val Gln Lys Leu Leu	
15 20 25	
ttg gtg atg gac aag aga gcc tca gga atg aat gac tca ttg gag ttg	146
Leu Val Met Asp Lys Arg Ala Ser Gly Met Asn Asp Ser Leu Glu Leu	
30 35 40	
ctg cag tgt aat gag aat ttg cca tct tca cct gga tat aac tcc tgt	194
Leu Gln Cys Asn Glu Asn Leu Pro Ser Ser Pro Gly Tyr Asn Ser Cys	
45 50 55 60	
gat gaa cac atg gag ctt gat gac ctt cct gaa ctt cag gca gtt caa	242
Asp Glu His Met Glu Leu Asp Asp Leu Pro Glu Leu Gln Ala Val Gln	
65 70 75	
agt gat cct acc caa tct ggc atg tac cag ctg agt tca gat gtt tca	290
Ser Asp Pro Thr Gln Ser Gly Met Tyr Gln Leu Ser Ser Asp Val Ser	
80 85 90	
cat caa gaa tac cca aga tca tct tgg aac caa aat acc tca gac ata	338
His Gln Glu Tyr Pro Arg Ser Ser Trp Asn Gln Asn Thr Ser Asp Ile	
95 100 105	
cca gaa act act tac cgt gaa aat gag gtg gac tgg cta aca gaa ttg	386
Pro Glu Thr Thr Tyr Arg Glu Asn Glu Val Asp Trp Leu Thr Glu Leu	
110 115 120	
gca aat atc gcg acc agt cca caa agt cca ctg atg cag tgc tca ttt	434

Ala Asn Ile Ala Thr Ser Pro Gln Ser Pro Leu Met Gln Cys Ser Phe
 125 130 135 140
 tac aat aga tca tct cct gt
 Tyr Asn Arg Ser Ser Pro
 145

454

<210> 1600
 <211> 370
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 52..369

<400> 1600
 gcttccgcga ccccggcggt gcagggcggg tggagtcgag gagtagtcct c atg gcc 57
 Met Ala
 1
 gcc ccg ccg gag ccc ggt gag ccc gag gag agg aag tcc ctt aag ctc 105
 Ala Pro Pro Glu Pro Gly Glu Pro Glu Glu Arg Lys Ser Leu Lys Leu
 5 10 15
 cta gga ttt tta gat gtt gaa aat act ccc tgc gcc cgg cat tca ata 153
 Leu Gly Phe Leu Asp Val Glu Asn Thr Pro Cys Ala Arg His Ser Ile
 20 25 30
 ttg tat ggt tca tta gga tct gtt gtg gct ggc ttt gga cat ttt ttg 201
 Leu Tyr Gly Ser Leu Gly Ser Val Val Ala Gly Phe Gly His Phe Leu
 35 40 45 50
 ttc act agt aga att aga aga tca tgt gat gtt gga gta gga ggg ttt 249
 Phe Thr Ser Arg Ile Arg Arg Ser Cys Asp Val Gly Val Gly Gly Phe
 55 60 65
 atc ttg gtg act ttg gga tgc tgg ttt cat tgt agg tat aat tat gca 297
 Ile Leu Val Thr Leu Gly Cys Trp Phe His Cys Arg Tyr Asn Tyr Ala
 70 75 80
 aag caa aga atc cag gaa aga att gcc aga gaa gaa att aaa aag aag 345
 Lys Gln Arg Ile Gln Glu Arg Ile Ala Arg Glu Glu Ile Lys Lys Lys
 85 90 95
 ata tta tat gaa ggt acc cac ctc g 370
 Ile Leu Tyr Glu Gly Thr His Leu
 100 105

<210> 1601
 <211> 470
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 109..468

<400> 1601
 acccccccca acctgtgcag ctgaggactt cccctccgtg gtgacagcct ctgggtcctc 60

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ggtcggtaca gtctctgcac ctgcgcggcc agcaggtaaa ctaacatt atg gat ttt      117
                                   Met Asp Phe
                                   1
tcc aag cta ccc aaa ata ctc gat gaa gat aaa gaa agc aca ttt ggt      165
Ser Lys Leu Pro Lys Ile Leu Asp Glu Asp Lys Glu Ser Thr Phe Gly
  5                               10                               15
tat gtg cat ggg gtc tca gga cct gtg gtt aca gcc tgt gac atg gcg      213
Tyr Val His Gly Val Ser Gly Pro Val Val Thr Ala Cys Asp Met Ala
 20                               25                               30                               35
ggg gca gcc atg tat gag ctg gtg aga gtg ggc cac ags gaa ttg gtt      261
Gly Ala Ala Met Tyr Glu Leu Val Arg Val Gly His Xaa Glu Leu Val
 40                               45                               50
gga gag att att cga ttg gag ggt gac atg gct act att cag gtg tat      309
Gly Glu Ile Ile Arg Leu Glu Gly Asp Met Ala Thr Ile Gln Val Tyr
 55                               60                               65
gaa gaa act tct ggt gtg tct gtt gga gat cct gta ctt cgc act ggt      357
Glu Glu Thr Ser Gly Val Ser Val Gly Asp Pro Val Leu Arg Thr Gly
 70                               75                               80
aaa ccc ctc tct gta gag ctt ggt cct ggc att atg gga gcc att ttt      405
Lys Pro Leu Ser Val Glu Leu Gly Pro Gly Ile Met Gly Ala Ile Phe
 85                               90                               95
gat ggt att caa aga cct ttg tcg gat atm agc agt mag acc caa rgc      453
Asp Gly Ile Gln Arg Pro Leu Ser Asp Ile Ser Ser Xaa Thr Gln Xaa
100                               105                               110                               115
atc tac atc ccc aga gg
Ile Tyr Ile Pro Arg
120

<210> 1602
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 58..513

<400> 1602
tatggctgtg tttccggcga cggcgcgggg gcagctggga atccggaatg ctgccccg      57
atg gcc ctg ggt cct cgc tgt ggg gca atc cgg gct tgc aga cga gtt      105
Met Ala Leu Gly Pro Arg Cys Gly Ala Ile Arg Ala Cys Arg Arg Val
 1                               5                               10                               15
tta gaa aga gcg ttt tcg cta cgt aaa gca cat tcg ata aag gat atg      153
Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys Asp Met
 20                               25                               30
gaa aat act ttg cag ctg gtg aga aat atc ata cct cct ctg tct tcc      201
Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu Ser Ser
 35                               40                               45
aca aag cac aaa ggg caa gat gga aga ata ggc gta gtt gga ggc tgt      249
Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly Gly Cys
 50                               55                               60
cag gag tac act gga gcc cca tat ttt gca gca atc tca gct ctc aaa      297
Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Ala Ile Ser Ala Leu Lys

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65	70	75	80	
gtg ggc gca gac	ttg tcc cac gtg ttc	tgt gcc agt gcg gcc gca cct		345
Val Gly Ala Asp	Leu Ser His Val Phe	Cys Ala Ser Ala Ala Pro		
	85	90	95	
gtg att aag gcc	tac agc ccg gag ctg	atc gtc cac cca gtt ctt gac		393
Val Ile Lys Ala	Tyr Ser Pro Glu Leu	Ile Val His Pro Val Leu Asp		
	100	105	110	
agc ccc aat gct	gtt cat gag gtg	gag aag tgg ctg ccc	cggtg cat	441
Ser Pro Asn Ala	Val His Glu Val	Glu Lys Trp Leu Pro	Arg Leu His	
	115	120	125	
gct ctt gtc gta	gga cct ggc ttg	ggg aga gat gat	gcg ctt ctc aga	489
Ala Leu Val Val	Gly Pro Gly Leu	Gly Arg Asp Asp	Ala Leu Leu Arg	
	130	135	140	
aat gtc cag gcc	att ttg gaa gtg			513
Asn Val Gln Gly	Ile Leu Glu Val			
145	150			

<210> 1603
 <211> 377
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 205..375

<400> 1603	
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cgtggagccc tgggctgtt	gacccaccag cttaggagca cccaccaagc tctgggtcaa
cgtggaggta ccaggccacc	atgctcagtc tcaagctgcc ccaacttctt caagtcacc
aggtcccccg ggtgttctgg	gaag atg gca tca tgt ctg gct acc gcc ccc
	Met Ala Ser Cys Leu Ala Thr Ala Pro
	1 5
cac cag ctc ggc	ttt gga ctg tgt cct cag ctc ctt cca gat gac caa
His Gln Leu Gly	Phe Gly Leu Cys Pro Gln Leu Leu Pro Asp Asp Gln
10	15 20 25
cga gac ggt caa	cat ctg gac tca ctt cct gcc cac ctg gtg agg gga
Arg Asp Gly Gln	His Leu Asp Ser Leu Pro Ala His Leu Val Arg Gly
	30 35 40
ggc tcc gmc mag	gcc gcg gcc ttg agc tca gag ggg gta cca ggc ggg
Gly Ser Xaa Xaa	Ala Ala Leu Ser Ser Glu Gly Val Pro Gly Gly
	45 50 55
ca	

<210> 1604
 <211> 403
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 141..401

<400> 1604

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cccgcctgcc tggccactct tcctccatca gcctggctgg cagcagcctt ggactccgcc      60
cgtggagccc tgggcctggt gaccaccag cttaggagca cccaccaagc tctgggtcaa      120
cgtggaggta ccaggccacc atg ctc agt ctc aag ctg ccc caa ctt ctt caa      173
                Met Leu Ser Leu Lys Leu Pro Gln Leu Leu Gln
                  1             5             10
gtc cac cag gtc ccc cgg gtg ttc tgg gaa gat ggc atc atg tct ggc      221
Val His Gln Val Pro Arg Val Phe Trp Glu Asp Gly Ile Met Ser Gly
              15             20             25
tac cgc cgc ccc acc agc tcg gct ttg gac tgt gtc ctc agc tcc ttc      269
Tyr Arg Arg Pro Thr Ser Ser Ala Leu Asp Cys Val Leu Ser Ser Phe
              30             35             40
cag atg acc aac gag acw gtc aac atc tgg act cac ttc ctg ccc acc      317
Gln Met Thr Asn Glu Thr Val Asn Ile Trp Thr His Phe Leu Pro Thr
              45             50             55
tgt ttc ctg gag ctg gaa agc cct ggg ctc agt aag agt cct ccw gca      365
Cys Phe Leu Glu Leu Glu Ser Pro Gly Leu Ser Lys Ser Pro Pro Ala
60             65             70             75
cag gag cct tcg cct atc caa ttc ctg ttc gac aac ct      403
Gln Glu Pro Ser Pro Ile Gln Phe Leu Phe Asp Asn
              80             85

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<210> 1605

<211> 419

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 247..417

<400> 1605

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cccgcctgcc tggccactct tcctccatca gcctggctgg cagcagcctt ggactccgcc      60
cgtggagccc tgggcctggt gaccaccag cttaggagca cccaccaagc tctgggtaag      120
gaagctcacc ttctggggct cttctgggaa aatagaggtc aacgtggagg taccaggcca      180
ccatgctcag tctcaagctg ccccaacttc ttcaagtcca ccagggtccc cgggtgttct      240
gggaag atg gca tca tgt ctg gct acc gcc ccc cac cag ctc ggc ttt      288
                Met Ala Ser Cys Leu Ala Thr Ala Pro His Gln Leu Gly Phe
                  1             5             10
gga ctg tgt cct cag ctc ctt cca gat gac caa cga gac ggt caa cat      336
Gly Leu Cys Pro Gln Leu Leu Pro Asp Asp Gln Arg Asp Gly Gln His
15             20             25             30
ctg gac tca ctt cct gcc cac ctg gtg agg gga ggc tcc gmc mag gcc      384
Leu Asp Ser Leu Pro Ala His Leu Val Arg Gly Gly Ser Xaa Xaa Ala
              35             40             45
gcg gcc ttg agc tca gag ggg gta cca ggc ggg ca      419
Ala Ala Leu Ser Ser Glu Gly Val Pro Gly Gly
              50             55

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<210> 1606

<211> 445

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 183..443

<400> 1606

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cccgcctgcc tggccactct tctccatca gcctggetgg cagcagcctt ggactccgcc      60
cgtggagccc tgggcctgtt gaccaccag cttaggagca cccaccaagc tctgggtaag      120
gaagctcacc ttctggggct cttctgggaa aatagaggtc aacgtggagg taccaggcca      180
cc atg ctc agt ctc aag ctg ccc caa ctt ctt caa gtc cac cag gtc      227
Met Leu Ser Leu Lys Leu Pro Gln Leu Leu Gln Val His Gln Val
  1           5           10          15
ccc cgg gtg ttc tgg gaa gat ggc atc atg tct ggc tac cgc cgc ccc      275
Pro Arg Val Phe Trp Glu Asp Gly Ile Met Ser Gly Tyr Arg Arg Pro
           20           25           30
acc agc tcg gct ttg gac tgt gtc ctc agc tcc ttc cag atg acc aac      323
Thr Ser Ser Ala Leu Asp Cys Val Leu Ser Ser Phe Gln Met Thr Asn
           35           40           45
gag acw gtc aac atc tgg act cac ttc ctg ccc acc tgt ttc ctg gag      371
Glu Thr Val Asn Ile Trp Thr His Phe Leu Pro Thr Cys Phe Leu Glu
           50           55           60
ctg gaa agc cct ggg ctc agt aag agt cct ccw gca cag gag cct tcg      419
Leu Glu Ser Pro Gly Leu Ser Lys Ser Pro Pro Ala Gln Glu Pro Ser
           65           70           75
cct atc caa ttc ctg ttc gac aac ct
Pro Ile Gln Phe Leu Phe Asp Asn      445
80           85

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<210> 1607

<211> 354

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 58..354

<400> 1607

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ataggtcccg gcccgagcct ccggccgccc gccgggtttg tcccgcgatc cccgacc      57
atg ccc gcc gac ctc agc ggt act tgg acc ctg ctc agc agc gac aac      105
Met Pro Ala Asp Leu Ser Gly Thr Trp Thr Leu Leu Ser Ser Asp Asn
  1           5           10          15
ttc gag ggc tac atg ctg gcc cta ggt att gac ttt gcc act cgt aaa      153
Phe Glu Gly Tyr Met Leu Ala Leu Gly Ile Asp Phe Ala Thr Arg Lys
           20           25           30
ata gcc aag ttg ctg aag cca cag aaa gtg att gag cag aat ggg gat      201
Ile Ala Lys Leu Leu Lys Pro Gln Lys Val Ile Glu Gln Asn Gly Asp
           35           40           45
tct ttt acc atc cac acg aac agc agc cta agg aan tac ttt gtg aaa      249
Ser Phe Thr Ile His Thr Asn Ser Ser Leu Arg Xaa Tyr Phe Val Lys
           50           55           60

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ttt aaa gtt gga gaa gaa ttt gat gaa gat aac aga ggc ctg gac aac 297
Phe Lys Val Gly Glu Glu Phe Asp Glu Asp Asn Arg Gly Leu Asp Asn
65 70 75 80
aga aaa tgc aag agt ttg gtt atc tgg gac aat gac agg ctc acc nkt 345
Arg Lys Cys Lys Ser Leu Val Ile Trp Asp Asn Asp Arg Leu Thr Xaa
85 90 95
atn nag aag 354
Xaa Xaa Lys

<210> 1608
<211> 371
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 134..370

<400> 1608
aacaacccgg cggtcgacgc ttagcgggaag ttcgtcaagt cgcagttgcc cccgcacagc 60
ggatgtgggt cgctctcttag gtgacgctgg gaagtgcctg cagccttcgc cgctgccttc 120
tggttgaagc act atg gag gga gag agg aag aac aac aac aaa cgg tgg 169
Met Glu Gly Glu Arg Lys Asn Asn Asn Lys Arg Trp
1 5 10
tat ttc act cga gaa cag ctg gaa aat agc cca tcc cgt cgt ttt ggc 217
Tyr Phe Thr Arg Glu Gln Leu Glu Asn Ser Pro Ser Arg Arg Phe Gly
15 20 25
gtg gac cca gat aaa gaa ctt tct tat cgc cag cag gcg gcc aat ctg 265
Val Asp Pro Asp Lys Glu Leu Ser Tyr Arg Gln Gln Ala Ala Asn Leu
30 35 40
ctt cag gac atg ggg cag cgt ctt aac gtc tca caa ttg act atc aac 313
Leu Gln Asp Met Gly Gln Arg Leu Asn Val Ser Gln Leu Thr Ile Asn
45 50 55 60
act gct ata gta tac atg cat cga ttc tac atg att cag tcc ttc aca 361
Thr Ala Ile Val Tyr Met His Arg Phe Tyr Met Ile Gln Ser Phe Thr
65 70 75
cag ttc cct g 371
Gln Phe Pro

<210> 1609
<211> 425
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 223..423

<400> 1609
agagaatcca agatagatca actctcccta aaggctgaca gtgaactctt ggggccgttt 60
tattctctgc aggttagcaa ggagtcattc actagccatt caggaggcca gctgggaaga 120
caaaataggc accccaaact cagcaacttc ataacacctt cctctccccg cctgaagcct 180

taaactgcat caagtcaaag aaacctgggg caaatcctta ac atg ttt ttg act 234
Met Phe Leu Thr

1

gca gta aat cca cag cca ctc tct act ccg agc tgg cag att gag acc 282
Ala Val Asn Pro Gln Pro Leu Ser Thr Pro Ser Trp Gln Ile Glu Thr
5 10 15 20

aag tat tca acg aaa gtg ctc act gga aat tgg atg gaa gag agg aga 330
Lys Tyr Ser Thr Lys Val Leu Thr Gly Asn Trp Met Glu Glu Arg Arg
25 30 35

aag ttc acc aga gac act gac aaa gac acc cca atc cat tta sag aaa 378
Lys Phe Thr Arg Asp Thr Asp Lys Asp Thr Pro Ile His Leu Xaa Lys
40 45 50

aga ata cat ccc ctt ccc aga cca cag acc aga cca gat ctc cag gt 425
Arg Ile His Pro Leu Pro Arg Pro Gln Thr Arg Pro Asp Leu Gln
55 60 65

<210> 1610

<211> 441

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 260..439

<400> 1610

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gagtagcgcg ttcgtgcgtc ctagtccag tacagcgtgg aggggttagg cagcgtgttc 120
tgattctttg cgggacggcg agcgcatctt tgctttgcc gccgcggcct aggaggcctt 180
ttgaggccgc gtagtcggtg tttttgaact gactctacag cttctggcag gccgtgcggc 240
gccctgaccc ggccctcacc atg ttg gtg ctg ttt gaa acg tct gtg ggt tac 292
Met Leu Val Leu Phe Glu Thr Ser Val Gly Tyr
1 5 10

gcc atc ttt aag gtt cta aay gag aag aaa ctt caa gag gtt gat agt 340
Ala Ile Phe Lys Val Leu Asn Glu Lys Lys Leu Gln Glu Val Asp Ser
15 20 25

tta tgg aaa gaa ttt gaa act cca gag aaa gca aac aaa ata gta aag 388
Leu Trp Lys Glu Phe Glu Thr Pro Glu Lys Ala Asn Lys Ile Val Lys
30 35 40

cta aaa cat ttt gag anr ttt cag grt aca gca gaa gca tta gca gca 436
Leu Lys His Phe Glu Xaa Phe Gln Xaa Thr Ala Glu Ala Leu Ala Ala
45 50 55

tca ca 441
Ser
60

<210> 1611

<211> 387

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 59..385

<400> 1611

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Met Pro Asn Trp Gly Gly Gly Lys Lys Cys Gly Val Cys Gln Lys Thr						
1 5 10 15						
gtt tac ttt gcc gaa gag gtt cag tgc gaa ggc aac agc ttc cat aaa	154					
Val Tyr Phe Ala Glu Glu Val Gln Cys Glu Gly Asn Ser Phe His Lys						
20 25 30						
tcc tgc ttc ctg tgc atg gtc tgc aag aag aat ctg gac agt acc act	202					
Ser Cys Phe Leu Cys Met Val Cys Lys Lys Asn Leu Asp Ser Thr Thr						
35 40 45						
gtg gcc gtg cat ggt gag gag att tac tgc aag tcc tgc tac ggc aag	250					
Val Ala Val His Gly Glu Glu Ile Tyr Cys Lys Ser Cys Tyr Gly Lys						
50 55 60						
aag tat ggg ccc aaa ggc tat ggc tac ggg cag ggc gca ggc acc ctc	298					
Lys Tyr Gly Pro Lys Gly Tyr Gly Tyr Gly Gln Gly Ala Gly Thr Leu						
65 70 75 80						
agc act gac aag ggg gag tgc ctg ggt atc aag cac gag gaa gcc cct	346					
Ser Thr Asp Lys Gly Glu Ser Leu Gly Ile Lys His Glu Glu Ala Pro						
85 90 95						
ggc cac agg cca cca cca acc cca atg cat cca aat ttg cc	387					
Gly His Arg Pro Pro Pro Thr Pro Met His Pro Asn Leu						
100 105						

<210> 1612

<211> 274

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 116..274

<400> 1612

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agaataactca	gcagaagatg	ttgaagggt	tcaagtaggt	gagtagtggg	tagag atg	118
					Met	
					1	
gag ata gga gac cat ttt caa aat ata tta agg agt cca ttg agt aga	166					
Glu Ile Gly Asp His Phe Gln Asn Ile Leu Arg Ser Pro Leu Ser Arg						
5 10 15						
cag ggg gga ctg aga gaa atc agg gat gac ttc cag ttt tct ggc ttg	214					
Gln Gly Gly Leu Arg Glu Ile Arg Asp Asp Phe Gln Phe Ser Gly Leu						
20 25 30						
gaa aat ggt gtt act agc caa ttt agg ttt tgg agg gaa gat gtt tgg	262					
Glu Asn Gly Val Thr Ser Gln Phe Arg Phe Trp Arg Glu Asp Val Trp						
35 40 45						
ttt tgg aca tgc	274					
Phe Trp Thr Cys						
50						

<210> 1613
 <211> 295
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 63..293

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 ac atg tct gtg gct ttc gcg gcc ccg agg cag cga ggc aag ggg gag 107
 Met Ser Val Ala Phe Ala Ala Pro Arg Gln Arg Gly Lys Gly Glu
 1 5 10 15
 atc act ccc gct gcg att cag aag atg ttg gat gac aat aac cat ctt 155
 Ile Thr Pro Ala Ala Ile Gln Lys Met Leu Asp Asp Asn Asn His Leu
 20 25 30
 att cag tgt ata atg gac tct cag aat aaa gga aag acc tca gag tgt 203
 Ile Gln Cys Ile Met Asp Ser Gln Asn Lys Gly Lys Thr Ser Glu Cys
 35 40 45
 tct cag tat cag cag atg ttg cac aca aac ttg gta tac ctt gct aca 251
 Ser Gln Tyr Gln Gln Met Leu His Thr Asn Leu Val Tyr Leu Ala Thr
 50 55 60
 ata gca gat tct aat caa aat atg cag tct ctt tta cca gca cc 295
 Ile Ala Asp Ser Asn Gln Asn Met Gln Ser Leu Leu Pro Ala
 65 70 75

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 <222> 273..530

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 cgcggcgagt taacatcggt tttccaatct gtccgcggct gccgccaccc aagacagagc 120
 cagaatgtnh aggatgctga acagcagttt tgaggatgac cccttcttct cacatacagg 180
 tggctcttact ctgcagcagc tgaaactgaa gcacaagaag cccttggaac tatcatcagg 240
 acattgagtc cattcttgca caccgagaaa at atg cga cag atg ata aga agt 293
 Met Arg Gln Met Ile Arg Ser
 1 5
 ttt tct gaa ccc ttt gga aga gac ttg ctc agt atc tct gat ggt aga 341
 Phe Ser Glu Pro Phe Gly Arg Asp Leu Leu Ser Ile Ser Asp Gly Arg
 10 15 20
 ggg aga gct cat aat cgt aga gga cat aat gat gbt gaa gat tct ttg 389
 Gly Arg Ala His Asn Arg Arg Gly His Asn Asp Xaa Glu Asp Ser Leu
 25 30 35
 act cat aca gat gtc agc tct ttc cag aca atg gac caa atg gtg tca 437

004220-666756

Thr	His	Thr	Asp	Val	Ser	Ser	Phe	Gln	Thr	Met	Asp	Gln	Met	Val	Ser	
40					45				50				55			
aat	atg	aga	aac	tat	atg	cag	nna	tta	gaa	aga	aac	ttc	ggg	caa	ctt	485
Asn	Met	Arg	Asn	Tyr	Met	Gln	Xaa	Leu	Glu	Arg	Asn	Phe	Gly	Gln	Leu	
			60					65				70				
tca	gtg	gat	cca	aat	gga	cat	tca	ttt	tgt	tct	tcc	tca	gtt	atg	ac	532
Ser	Val	Asp	Pro	Asn	Gly	His	Ser	Phe	Cys	Ser	Ser	Ser	Val	Met		
			75				80					85				

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 <211> 583
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<220>
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 <222> 324..581

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ttaacatcgt ttttccaatc tgccgcggc tgccgccacc caagacagag ccagaatgtn	180
haggatgctg aacagcagtt ttgaggatga ccccttcttc tcacatacag gtggtcttac	240
tctgcagcag ctgaaactga agcacaagaa gcccttgaa ctatcatcag gacattgagt	300
ccattcttgc acaccgagaa aat atg cga cag atg ata aga agt ttt tct gaa	353
Met Arg Gln Met Ile Arg Ser Phe Ser Glu	
1 5 10	
ccc ttt gga aga gac ttg ctc agt atc tct gat ggt aga ggg aga gct	401
Pro Phe Gly Arg Asp Leu Leu Ser Ile Ser Asp Gly Arg Gly Arg Ala	
15 20 25	
cat aat cgt aga gga cat aat gat gbt gaa gat tct ttg act cat aca	449
His Asn Arg Arg Gly His Asn Asp Xaa Glu Asp Ser Leu Thr His Thr	
30 35 40	
gat gtc agc tct ttc cag aca atg gac caa atg gtg tca aat atg aga	497
Asp Val Ser Ser Phe Gln Thr Met Asp Gln Met Val Ser Asn Met Arg	
45 50 55	
aac tat atg cag nna tta gaa aga aac ttc ggt caa ctt tca gtg gat	545
Asn Tyr Met Gln Xaa Leu Glu Arg Asn Phe Gly Gln Leu Ser Val Asp	
60 65 70	
cca aat gga cat tca ttt tgt tct tcc tca gtt atg ac	583
Pro Asn Gly His Ser Phe Cys Ser Ser Ser Val Met	
75 80 85	

<210> 1616
 <211> 459
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 <213> Homo sapiens

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 <222> 125..457

004220" 655T560

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caga atg ttc agg atg ctg aac agc agt ttt gag gat gac ccc ttc ttc 169
    Met Phe Arg Met Leu Asn Ser Ser Phe Glu Asp Asp Pro Phe Phe
      1           5           10           15
tct gag tcc att ctt gca cac cga gaa aat atg cga cag atg ata aga 217
Ser Glu Ser Ile Leu Ala His Arg Glu Asn Met Arg Gln Met Ile Arg
      20           25           30
agt ttt tct gaa ccc ttt gga aga gac ttg ctc agt atc tct gat ggt 265
Ser Phe Ser Glu Pro Phe Gly Arg Asp Leu Leu Ser Ile Ser Asp Gly
      35           40           45
aga ggg aga gct cat aat cgt aga gga cat aat gat gbt gaa gat tct 313
Arg Gly Arg Ala His Asn Arg Arg Gly His Asn Asp Xaa Glu Asp Ser
      50           55           60
ttg act cat aca gat gtc agc tct ttc cag aca atg gac caa atg gtg 361
Leu Thr His Thr Asp Val Ser Ser Phe Gln Thr Met Asp Gln Met Val
      65           70           75
tca aat atg aga aac tat atg cag nna tta gaa aga aac ttc ggt caa 409
Ser Asn Met Arg Asn Tyr Met Gln Xaa Leu Glu Arg Asn Phe Gly Gln
      80           85           90           95
ctt tca gtg gat cca aat gga cat tca ttt tgt tct tcc tca gtt atg 457
Leu Ser Val Asp Pro Asn Gly His Ser Phe Cys Ser Ser Ser Val Met
      100           105           110
ac 459

<210> 1617
<211> 553
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 294..551

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gccgcggcga gtgaggcgct gtccgtactg gaggctagct cttgtcgcgg ccgsgcgagt 120
waacatcgwt tttccaatct gtccgcgggt gccgccaccc aagacagags cagaatgttc 180
aggatgctga rsagcagttt tgaggatgac cccttcttct cgtgagttac gggagccagg 240
agtccggggt cgcgcgggaa ttaagtgagt ncattcttgc acaccgagaa aat atg 296
                                Met
                                1
cga cag atg ata aga agt ttt tct gaa ccc ttt gga aga gac ttg ctc 344
Arg Gln Met Ile Arg Ser Phe Ser Glu Pro Phe Gly Arg Asp Leu Leu
      5           10           15
agw atc tct gat ggt aka ggg aga gct cat aat cgt aga gga cat aat 392
Xaa Ile Ser Asp Gly Xaa Gly Arg Ala His Asn Arg Arg Gly His Asn
      20           25           30
gat gbt gaa gat tct ttg act cat aca gat gtc agc tct ttc cag aca 440
Asp Xaa Glu Asp Ser Leu Thr His Thr Asp Val Ser Ser Phe Gln Thr
      35           40           45
atg gac caa atg gtg tca aat atg aga aac tat atg cag nna tta gaa 488

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Met	Asp	Gln	Met	Val	Ser	Asn	Met	Arg	Asn	Tyr	Met	Gln	Xaa	Leu	Glu	
50					55				60					65		
aga	aac	ttc	ggt	caa	ctt	tca	gtg	gat	cca	aat	gga	cat	tca	ttt	tgt	536
Arg	Asn	Phe	Gly	Gln	Leu	Ser	Val	Asp	Pro	Asn	Gly	His	Ser	Phe	Cys	
			70					75					80			
tct	tcc	tca	ggt	atg	ac											553
Ser	Ser	Ser	Val	Met												
			85													

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 <213> Homo sapiens

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 <221> CDS
 <222> 26..448

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			Met	Ala	Ala	Ala	Ala	Ala	Arg	Val	Val					
			1				5									
ttg	tca	tcc	gcg	gcg	cgg	cgg	cgg	ctc	tgg	ggt	ttc	agc	gag	agt	ctt	100
Leu	Ser	Ser	Ala	Ala	Arg	Arg	Arg	Leu	Trp	Gly	Phe	Ser	Glu	Ser	Leu	
10			15				20			25						
cta	atc	cga	ggc	gct	gcg	gga	cgg	tca	tta	tat	ttt	gga	gag	aac	aga	148
Leu	Ile	Arg	Gly	Ala	Ala	Gly	Arg	Ser	Leu	Tyr	Phe	Gly	Glu	Asn	Arg	
			30				35						40			
tta	aga	agt	aca	cag	gct	gct	acc	caa	ggt	ggt	ctg	aat	ggt	cct	gaa	196
Leu	Arg	Ser	Thr	Gln	Ala	Ala	Thr	Gln	Val	Val	Leu	Asn	Val	Pro	Glu	
			45				50					55				
aca	aga	gta	aca	tgt	tta	gaa	agt	gga	ctc	aga	gta	gct	tcg	gaa	gac	244
Thr	Arg	Val	Thr	Cys	Leu	Glu	Ser	Gly	Leu	Arg	Val	Ala	Ser	Glu	Asp	
			60				65					70				
tct	ggg	ctc	tca	aca	tgc	aca	ggt	gga	ctc	tgg	att	gat	gct	gga	agt	292
Ser	Gly	Leu	Ser	Thr	Cys	Thr	Val	Gly	Leu	Trp	Ile	Asp	Ala	Gly	Ser	
			75			80				85						
aga	tac	gaa	aat	gag	aag	aac	aat	gga	aca	gca	cac	ttt	ctg	gag	cat	340
Arg	Tyr	Glu	Asn	Glu	Lys	Asn	Asn	Gly	Thr	Ala	His	Phe	Leu	Glu	His	
			90		95			100						105		
atg	gct	ttc	aag	ggc	acc	aag	aag	aga	tcc	cag	tta	gat	ctg	gaa	ctt	388
Met	Ala	Phe	Lys	Gly	Thr	Lys	Lys	Arg	Ser	Gln	Leu	Asp	Leu	Glu	Leu	
			110					115						120		
gag	att	gaa	aat	atg	ggt	gct	cat	ctc	aat	gcc	tat	acc	tcc	aga	gag	436
Glu	Ile	Glu	Asn	Met	Gly	Ala	His	Leu	Asn	Ala	Tyr	Thr	Ser	Arg	Glu	
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cag	act	gta	tac	t												449
Gln	Thr	Val	Tyr													
			140													

<210> 1619
 <211> 561
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 121..561

<400> 1619

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atg tct tca gga aat gct aaa att ggg cac cct gcc ccc aac ttc aaa 168
Met Ser Ser Gly Asn Ala Lys Ile Gly His Pro Ala Pro Asn Phe Lys
1 5 10 15
gcc aca gct gtt atg cca gat ggt cag ttt aaa gat atc agc ctg tct 216
Ala Thr Ala Val Met Pro Asp Gly Gln Phe Lys Asp Ile Ser Leu Ser
20 25 30
gac tac aaa gga aaa tat gtt gtg ttc ttc ttt tac cct ctt gac ttc 264
Asp Tyr Lys Gly Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe
35 40 45
acc ttt gtg tgc ccc acg gag atc att gct ttc agt gat agg gca gaa 312
Thr Phe Val Cys Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu
50 55 60
gaa ttt aag aaa ctc aac tgc caa gtg att ggt gct tct gtg gat tct 360
Glu Phe Lys Lys Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser
65 70 75 80
cac ttc tgt cat cta gca tgg gtc aat aca cct aag aaa caa gga gga 408
His Phe Cys His Leu Ala Trp Val Asn Thr Pro Lys Lys Gln Gly Gly
85 90 95
ctg gga ccc atg aac att cct ttg gta tca gac ccg aag cgc acc att 456
Leu Gly Pro Met Asn Ile Pro Leu Val Ser Asp Pro Lys Arg Thr Ile
100 105 110
gct cag gat tat ggg gtc tta aag gct gat gaa ggc atc tcg ttc agg 504
Ala Gln Asp Tyr Gly Val Leu Lys Ala Asp Glu Gly Ile Ser Phe Arg
115 120 125
ggc ctt ttt atc att gat gat aag ggt awt ctt cgg cag atc act gta 552
Gly Leu Phe Ile Ile Asp Asp Lys Gly Xaa Leu Arg Gln Ile Thr Val
130 135 140
aat gac ctc 561
Asn Asp Leu
145

<210> 1620

<211> 474

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 15..473

<400> 1620

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tca gcc gcg gcg gca gca gca gca gac tca aga atg aac aat ccg tca				98
Ser Ala Ala Ala Ala Ala Ala Ala Asp Ser Arg Met Asn Asn Pro Ser				
15	20	25		
gaa acc agt aaa cca tct atg gag agt gga gat ggc aac aca ggc aca				146
Glu Thr Ser Lys Pro Ser Met Glu Ser Gly Asp Gly Asn Thr Gly Thr				
30	35	40		
caa acc aat ggt ctg gac ttt cag aag cag cct gtg cct gta gga gga				194
Gln Thr Asn Gly Leu Asp Phe Gln Lys Gln Pro Val Pro Val Gly Gly				
45	50	55	60	
gca atc tca aca gcc cag gcg cag gct ttc ctt gga cat ctc cat cag				242
Ala Ile Ser Thr Ala Gln Ala Gln Ala Phe Leu Gly His Leu His Gln				
65	70	75		
gtc caa ctc gct gga aca agt tta cag gct gct gct cag tct tta aat				290
Val Gln Leu Ala Gly Thr Ser Leu Gln Ala Ala Ala Gln Ser Leu Asn				
80	85	90		
gta cag tct aaa tct aat gaa gaa tcg ggg gat tcg cag cag cca agc				338
Val Gln Ser Lys Ser Asn Glu Glu Ser Gly Asp Ser Gln Gln Pro Ser				
95	100	105		
cag cct tcc cag cag cct tca gtg cag gca gcc att ccc cag acc cag				386
Gln Pro Ser Gln Gln Pro Ser Val Gln Ala Ala Ile Pro Gln Thr Gln				
110	115	120		
ctt atg cta gct gga gga cag ata act ggg ctt act ttg acg cct gcc				434
Leu Met Leu Ala Gly Gly Gln Ile Thr Gly Leu Thr Leu Thr Pro Ala				
125	130	135	140	
nag caa cag tta cta ctc cag cag gca cag gca c				474
Xaa Gln Gln Leu Leu Gln Gln Ala Gln Ala Gln Ala				
145	150			

<210>	1621	
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<213>	Homo sapiens	
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tgaatcatcc cggcagacac caagagccgc ggcagcagag aggagcgctg aaac atg		117	
	Met		
	1		
gct gaa gcg gcc acg ggc ttt ctg gag cag ctc aag tcc tgc ata gtt		165	
Ala Glu Ala Ala Thr Gly Phe Leu Glu Gln Leu Lys Ser Cys Ile Val			
5	10	15	
tgg tct tgg acg tat ctg tgg acc gtg tgg ttc ttc atc gtg cta ttc			213
Trp Ser Trp Thr Tyr Leu Trp Thr Val Trp Phe Phe Ile Val Leu Phe			
20	25	30	
ctg gtc tac atc ctg ckg gtg cct ttg aaa atc aac gac aac ttg agc			261
Leu Val Tyr Ile Leu Xaa Val Pro Leu Lys Ile Asn Asp Asn Leu Ser			
35	40	45	
aca gtg agc atg ttt ttg aac aca tta aca ccg aag ttc tac gtg gcc			309

Thr	Val	Ser	Met	Phe	Leu	Asn	Thr	Leu	Thr	Pro	Lys	Phe	Tyr	Val	Ala	
50					55				60					65		
cta	aca	ggc	act	tcc	tca	cta	ata	tca	ggg	ctt	att	ttg	ata	ttt	gaa	357
Leu	Thr	Gly	Thr	Ser	Ser	Leu	Ile	Ser	Gly	Leu	Ile	Leu	Ile	Phe	Glu	
			70						75					80		
tgg	tgg	tat	ttt	cgc	aaa	tac	gga	act	tca	ttc	att	gaa	caa	gtc	tca	405
Trp	Trp	Tyr	Phe	Arg	Lys	Tyr	Gly	Thr	Ser	Phe	Ile	Glu	Gln	Val	Ser	
			85					90					95			
gta	agc	cac	ttg	cgc	ccc	ctt	ctg	gga	ggg	ggt	gac	aac	aac	tct		450
Val	Ser	His	Leu	Arg	Pro	Leu	Leu	Gly	Gly	Val	Asp	Asn	Asn	Ser		
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 <213> Homo sapiens

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 <222> 118..489

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atg	acc	aca	acc	acc	acc	ttc	aag	gga	gtc	gac	ccc	aac	agc	agg	aat		165
Met	Thr	Thr	Thr	Thr	Thr	Phe	Lys	Gly	Val	Asp	Pro	Asn	Ser	Arg	Asn		
1				5				10					15				
agc	tcc	cga	ggt	ttg	cgg	cct	cca	ggg	ggg	gga	tcc	aat	ttt	tca	tta		213
Ser	Ser	Arg	Val	Leu	Arg	Pro	Pro	Gly	Gly	Gly	Ser	Asn	Phe	Ser	Leu		
			20					25					30				
ggg	ttt	gat	gaa	cca	aca	gaa	caa	cct	gtg	agg	aag	aac	aaa	atg	gcc		261
Gly	Phe	Asp	Glu	Pro	Thr	Glu	Gln	Pro	Val	Arg	Lys	Asn	Lys	Met	Ala		
			35				40					45					
tct	rat	atc	ttt	ggg	aca	cct	gaa	gaa	aat	caa	gct	tct	tg	g	cc	aag	309
Ser	Xaa	Ile	Phe	Gly	Thr	Pro	Glu	Glu	Asn	Gln	Ala	Ser	Trp	Ala	Lys		
	50				55				60								
tca	gca	ggg	gcc	aag	tct	agt	ggg	ggc	agg	gaa	gac	tnn	gag	tca	tct		357
Ser	Ala	Gly	Ala	Lys	Ser	Ser	Gly	Gly	Arg	Glu	Asp	Xaa	Glu	Ser	Ser		
65				70					75					80			
gga	ctg	cag	aga	agg	aac	tcc	tct	gaa	gca	ngm	tcc	gga	gac	ttc	tta		405
Gly	Leu	Gln	Arg	Arg	Asn	Ser	Ser	Glu	Ala	Xaa	Ser	Gly	Asp	Phe	Leu		
			85					90					95				
gat	ctg	aag	gga	gaa	ggg	gat	att	cat	gaa	aat	gtg	gac	aca	gac	ttg		453
Asp	Leu	Lys	Gly	Glu	Gly	Asp	Ile	His	Glu	Asn	Val	Asp	Thr	Asp	Leu		
			100				105						110				
cca	ggc	agc	ctg	ggg	cag	agt	gaa	gag	aag	ccg	tgc	ct					491
Pro	Gly	Ser	Leu	Gly	Gln	Ser	Glu	Glu	Lys	Pro	Cys						
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<221> CDS

<222> 175..414

<400> 1623

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acatcaccac acctgaaagc agatgtrctt ttccagactg atccaactgc agag atg      177
                                         Met
                                         1
gca gct gag tca ttg cct ttc tcc ttc ggg aca ctg tcc agc tgg gag      225
Ala Ala Glu Ser Leu Pro Phe Ser Phe Gly Thr Leu Ser Ser Trp Glu
      5              10              15
ctg gaa gcc tgg tat gag gac ctg caa gag gtc ctg tct tca gat gaa      273
Leu Glu Ala Trp Tyr Glu Asp Leu Gln Glu Val Leu Ser Ser Asp Glu
      20              25              30
aat ggg ggt acc tat gtt tca cct cct gga aat gaa gag gaa gaa tca      321
Asn Gly Gly Thr Tyr Val Ser Pro Pro Gly Asn Glu Glu Glu Glu Ser
      35              40              45
aaa atc ttc acc act ctt gac cct gck tct ctg gct trg ctg act gag      369
Lys Ile Phe Thr Thr Leu Asp Pro Ala Ser Leu Ala Xaa Leu Thr Glu
      50              55              60              65
gag gag cca gaa cca gca gag gtc aca agc acc tcc cag agc cct      414
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<211> 464

<212> DNA

<213> Homo sapiens

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<222> 169..462

<400> 1624

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ttccttccaa gaaccttcga gatctgcggt ctggggctctg gttgaaag atg gcg gcc      177
                                         Met Ala Ala
                                         1
ctc act acc ctg ttt aag tac ata gat gaa aat cag gat cgc tac att      225
Leu Thr Thr Leu Phe Lys Tyr Ile Asp Glu Asn Gln Asp Arg Tyr Ile
      5              10              15
aag aaa ctc gca aaa tgg gtg gct atc cag agt gtg tct gcg tgg ccg      273
Lys Lys Leu Ala Lys Trp Val Ala Ile Gln Ser Val Ser Ala Trp Pro
      20              25              30              35
gag aag aga ggc gaa atc agg agg atg atg gaa gtt gct gct gca gat      321
Glu Lys Arg Gly Glu Ile Arg Arg Met Met Glu Val Ala Ala Ala Asp
      40              45              50
gtt aag cag ttg ggg ggc tct gtg gaa ctg gtg gat atc gga aaa caa      369

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Val	Lys	Gln	Leu	Gly	Gly	Ser	Val	Glu	Leu	Val	Asp	Ile	Gly	Lys	Gln	
		55						60					65			
aag	ctc	cct	gat	ggc	tcg	nag	atc	ccg	ctc	cct	cct	att	ctg	mwc	ggc	417
Lys	Leu	Pro	Asp	Gly	Ser	Xaa	Ile	Pro	Leu	Pro	Pro	Ile	Leu	Xaa	Gly	
		70					75					80				
agg	ctg	ggm	tcc	gac	cca	cag	aag	aag	acc	gtg	tgc	att	tac	ggg	ca	464
Arg	Leu	Gly	Ser	Asp	Pro	Gln	Lys	Lys	Thr	Val	Cys	Ile	Tyr	Gly		
	85					90					95					

<210> 1625
 <211> 409
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 114..407

<400> 1625	
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gggccttcct tcccagaacc ttcgagatct gcggctctggg gtctggttga aag atg	116
	Met
	1
gcg gcc ctc act acc ctg ttt aag tac ata gat gaa aat cag gat cgc	164
Ala Ala Leu Thr Thr Leu Phe Lys Tyr Ile Asp Glu Asn Gln Asp Arg	
	5 10 15
tac att aag aaa ctc gca aaa tgg gtg gct atc cag agt gtg tct gcg	212
Tyr Ile Lys Lys Leu Ala Lys Trp Val Ala Ile Gln Ser Val Ser Ala	
	20 25 30
tgg ccg gag aag aga ggc gaa atc agg agg atg atg gaa gtt gct gct	260
Trp Pro Glu Lys Arg Gly Glu Ile Arg Arg Met Met Glu Val Ala Ala	
	35 40 45
gca gat gtt aag cag ttg ggg ggc tct gtg gaa ctg gtg gat atc gga	308
Ala Asp Val Lys Gln Leu Gly Gly Ser Val Glu Leu Val Asp Ile Gly	
	50 55 60 65
aaa caa aag ctc cct gat ggc tcg nag atc ccg ctc cct cct att ctg	356
Lys Gln Lys Leu Pro Asp Gly Ser Xaa Ile Pro Leu Pro Pro Ile Leu	
	70 75 80
mwc ggc agg ctg ggm tcc gac cca cag aag aag acc gtg tgc att tac	404
Xaa Gly Arg Leu Gly Ser Asp Pro Gln Lys Lys Thr Val Cys Ile Tyr	
	85 90 95
ggg ca	409
Gly	

<210> 1626
 <211> 331
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 94..330

004220"665T310

<400> 1626
agaagttagg ggctgcagcg gcgctggctt taggtgaayg acgtgaaaat tacttttccc 60
actgaaacac acccaagtat atgcccagcc ttc atg aaa gtg aac aga gaa acg 114
Met Lys Val Asn Arg Glu Thr
1 5
aag cgc ctt tat gtg ggt ggc ctt agc cag gac att tct gag gca gac 162
Lys Arg Leu Tyr Val Gly Gly Leu Ser Gln Asp Ile Ser Glu Ala Asp
10 15 20
cta caa aat cag ttc agc aga ttt gga gaa gtt tcg gat gtg gag atc 210
Leu Gln Asn Gln Phe Ser Arg Phe Gly Glu Val Ser Asp Val Glu Ile
25 30 35
atc aca cgg aaa gat gac caa gga aac cca cag aaa gtt ttt gca tat 258
Ile Thr Arg Lys Asp Asp Gln Gly Asn Pro Gln Lys Val Phe Ala Tyr
40 45 50 55
atc aac atc agt gta gca gaa gcg gac ctg aaa aaa tgt atg tct gtt 306
Ile Asn Ile Ser Val Ala Glu Ala Asp Leu Lys Lys Cys Met Ser Val
60 65 70
tta aat aaa aca aaa tgg aaa ggt g 331
Leu Asn Lys Thr Lys Trp Lys Gly
75

<210> 1627
<211> 371
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 49..369

<400> 1627
gatgtttatag gagaaaatca tagattccta tggaatgagg aggacgaa atg gac atg 57
Met Asp Met
1
act tgg gag aag aga ctt gct aag aaa tac tat gat aaa tta ttt aag 105
Thr Trp Glu Lys Arg Leu Ala Lys Lys Tyr Tyr Asp Lys Leu Phe Lys
5 10 15
gaa tac tgc ata gca gat ctc agt aaa tat aaa gaa aat aag ttt gga 153
Glu Tyr Cys Ile Ala Asp Leu Ser Lys Tyr Lys Glu Asn Lys Phe Gly
20 25 30 35
ttt agg tgg cga gta gaa aaa gaa gta att tca gga aaa ggt caa ttt 201
Phe Arg Trp Arg Val Glu Lys Glu Val Ile Ser Gly Lys Gly Gln Phe
40 45 50
ttc tgt gga aat aaa tat tgt gat aaa aaa gaa ggc tta aag agt tgg 249
Phe Cys Gly Asn Lys Tyr Cys Asp Lys Lys Glu Gly Leu Lys Ser Trp
55 60 65
gaa gtt aat ttt ggt tat att gag cat ggt gag aag aga aat gca ctt 297
Glu Val Asn Phe Gly Tyr Ile Glu His Gly Glu Lys Arg Asn Ala Leu
70 75 80
gtt aaa tta agg tta tgc caa gaa tgt tcc att aan gtt aaa ttt cca 345
Val Lys Leu Arg Leu Cys Gln Glu Cys Ser Ile Xaa Val Lys Phe Pro
85 90 95

tca cag gag aaa gaa atc aag tca aa 371
 Ser Gln Glu Lys Glu Ile Lys Ser
 100 105

<210> 1628
 <211> 279
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 113..277

<400> 1628
 agagccgggg cacctgcgca ggcttggtg cgccctctcg cgccgcacgc tctgcgggtt 60
 cctcccttct tccgagcctc tcctctggcc gccgcgcggg agagaggccg ag atg gca 118
 Met Ala

gat gag att gcc aag gct cag gtc gct cgg cct ggt ggc gac acg atc 166
 Asp Glu Ile Ala Lys Ala Gln Val Ala Arg Pro Gly Gly Asp Thr Ile
 5 10 15
 ttt ggg aag atc atc cgc aag gaa ata cca gcc aaa atc att ttt gag 214
 Phe Gly Lys Ile Ile Arg Lys Glu Ile Pro Ala Lys Ile Ile Phe Glu
 20 25 30
 gat gac cgg gta ggt act ggg cac cac ctc tct cgc ctg ctg agt gcc 262
 Asp Asp Arg Val Gly Thr Gly His His Leu Ser Arg Leu Leu Ser Ala
 35 40 45 50
 ttg ctt tcc atg aca tt 279
 Leu Leu Ser Met Thr
 55

<210> 1629
 <211> 542
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 130..540

<400> 1629
 gcccctttca ggcttagcag gaaacgaagc ggctctttcc gctatctgcc gcttgtccac 60
 cggaagcgag ttgcgacacg gcaggttccc gcccggaaga agcgaccaa ggcctgagg 120
 accggcaac atg gtg cgg tgc ggg aat aag gca gct gtt gtg ctg tgt atg 171
 Met Val Arg Ser Gly Asn Lys Ala Ala Val Val Leu Cys Met
 1 5 10
 gac gtg ggc ttt acc atg agt aac tcc att cct ggt ata gaa tcc cca 219
 Asp Val Gly Phe Thr Met Ser Asn Ser Ile Pro Gly Ile Glu Ser Pro
 15 20 25 30
 ttt gaa caa gca aag aag gtg ata acc atg ttt gta cag cga cag gtg 267
 Phe Glu Gln Ala Lys Lys Val Ile Thr Met Phe Val Gln Arg Gln Val
 35 40 45

ttt gct gag aac aag gat gag att gct tta gtc ctg ttt ggt aca gat	315
Phe Ala Glu Asn Lys Asp Glu Ile Ala Leu Val Leu Phe Gly Thr Asp	
50 55 60	
ggc act gac aat ccc ctt tct ggt ggg gat cag tat cag aac atc aca	363
Gly Thr Asp Asn Pro Leu Ser Gly Gly Asp Gln Tyr Gln Asn Ile Thr	
65 70 75	
gtg cac aga cat ctg atg cta cca gat ttt gat ttg ctg gag gac att	411
Val His Arg His Leu Met Leu Pro Asp Phe Asp Leu Leu Glu Asp Ile	
80 85 90	
gaa agc aaa atc caa cca ggt tct caa cag gct gac ttc ctg gat gca	459
Glu Ser Lys Ile Gln Pro Gly Ser Gln Gln Ala Asp Phe Leu Asp Ala	
95 100 105 110	
cta atc gtg agc atg gat gtg att caa cat gaa aca ata gga aag aag	507
Leu Ile Val Ser Met Asp Val Ile Gln His Glu Thr Ile Gly Lys Lys	
115 120 125	
ttt gag aag agg cat att gaa ata ttc act gac ct	542
Phe Glu Lys Arg His Ile Glu Ile Phe Thr Asp	
130 135	

<210> 1630
 <211> 431
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 44..430

<400> 1630	
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Met Ser Gly Phe	
1	
agt ccg gaa ctc atc gac tac ttg gaa ggg aaa atc tcc ttt gag gag	103
Ser Pro Glu Leu Ile Asp Tyr Leu Glu Gly Lys Ile Ser Phe Glu Glu	
5 10 15 20	
ttc gaa cgg cgg aga gaa gag aga aaa acc cgc gag aag aaa agt ctt	151
Phe Glu Arg Arg Arg Glu Glu Arg Lys Thr Arg Glu Lys Lys Ser Leu	
25 30 35	
cag gaa aaa ggc aag tta tca gct gaa gaa aat ccc gat gac tct gaa	199
Gln Glu Lys Gly Lys Leu Ser Ala Glu Glu Asn Pro Asp Asp Ser Glu	
40 45 50	
gtt cca tca tca tca gga att aac tct acc aaa tcc caa gac aaa gat	247
Val Pro Ser Ser Ser Gly Ile Asn Ser Thr Lys Ser Gln Asp Lys Asp	
55 60 65	
gtc aat gaa gga gaa aca tca gat gga gtg agg aag tca gtt cac aag	295
Val Asn Glu Gly Glu Thr Ser Asp Gly Val Arg Lys Ser Val His Lys	
70 75 80	
gtc ttt gct tcc atk ctt gga gag aat gaa gat gat gag gag gaa gag	343
Val Phe Ala Ser Xaa Leu Gly Glu Asn Glu Asp Asp Glu Glu Glu Glu	
85 90 95 100	
gaa gaa gag gag gag gag gag gag gaa gaa aca cct gag caa ccc	391
Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Thr Pro Glu Gln Pro	
105 110 115	

act gcg ggc gat gta ttt gta ttg gag atg gtt ctc aat c 431
 Thr Ala Gly Asp Val Phe Val Leu Glu Met Val Leu Asn
 120 125

<210> 1631
 <211> 387
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 137..385

<400> 1631
 atgtgctgaa aatcgaagtg ccgcggaaag tggaggtgag ggccgcccgc cctagagggtg 60
 cccgtccgag aggcagagct gacaaggaag gtttcgagcg ttttgctggc aaagggattt 120
 cttacaacct ccaggc atg cgt ctt tct gcc ctg ctg gcc ttg gca tcc aag 172
 Met Arg Leu Ser Ala Leu Leu Ala Leu Ala Ser Lys
 1 5 10
 gtc act ctg ccc ccc cat tac cgc tat ggg atg agc ccc cca ggc tct 220
 Val Thr Leu Pro Pro His Tyr Arg Tyr Gly Met Ser Pro Pro Gly Ser
 15 20 25
 gtt gca gac aag agg aag aac ccc cca tgg atc agg cgg cgc cca ntg 268
 Val Ala Asp Lys Arg Lys Asn Pro Pro Trp Ile Arg Arg Arg Pro Xaa
 30 35 40
 gtt gtg gaa ccc atc tct gat gaa gac tgg tat ctg ttc tgt ggg gac 316
 Val Val Glu Pro Ile Ser Asp Glu Asp Trp Tyr Leu Phe Cys Gly Asp
 45 50 55 60
 acg gtg gag atc cta gaa ggc aag gat gcc ggg aag cag nca aag tgg 364
 Thr Val Glu Ile Leu Glu Gly Lys Asp Ala Gly Lys Gln Xaa Lys Trp
 65 70 75
 ttc aag tta tcc ggc agc gaa ac 387
 Phe Lys Leu Ser Gly Ser Glu
 80

<210> 1632
 <211> 401
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 63..401

<400> 1632
 gcagtccgcg cgggttctcg cacgcagaag ggggtgcgagc ggccggcgcg gcggaggctg 60
 cc atg gac gac gag gag gag acg tac cgg ctc tgg aaa atc cgc aag 107
 Met Asp Asp Glu Glu Glu Thr Tyr Arg Leu Trp Lys Ile Arg Lys
 1 5 10 15
 acc atc atg cag ctg tgc cac gac cgt ggc tat ctg gtg acc cag gac 155
 Thr Ile Met Gln Leu Cys His Asp Arg Gly Tyr Leu Val Thr Gln Asp
 20 25 30

004220" 666E4560

gag ctt gac cag acc ctg gag gag ttc aaa gcc caa ttt ggg gac aag	203
Glu Leu Asp Gln Thr Leu Glu Glu Phe Lys Ala Gln Phe Gly Asp Lys	
35 40 45	
ccg agt gag ggg cgg ccg cgg cgc acg gac ctc acc gtg ctg gtg gcc	251
Pro Ser Glu Gly Arg Pro Arg Arg Thr Asp Leu Thr Val Leu Val Ala	
50 55 60	
cac aac gat gac ccc acc gac cag atg ttt gtg ttc ttt cca gag gag	299
His Asn Asp Asp Pro Thr Asp Gln Met Phe Val Phe Phe Pro Glu Glu	
65 70 75	
ccc aag gtg ggc atc aag acc atc aag gtg tac tgc cag cgc atg cag	347
Pro Lys Val Gly Ile Lys Thr Ile Lys Val Tyr Cys Gln Arg Met Gln	
80 85 90 95	
gag gag aac atc aca cgg gct ctc atc gtg gtg cag cag ggc atg aca	395
Glu Glu Asn Ile Thr Arg Ala Leu Ile Val Val Gln Gln Gly Met Thr	
100 105 110	
ccc ccc	401
Pro Pro	

<210> 1633
 <211> 473
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 148..471

<400> 1633	
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ggggtactcg agcccacagg ggaagagcag cggaaggggc ctttcggaac gatttggaac	120
gaaaggaagt ggaagaaacg cggaacc atg gcc gct gtg gtt gct gtt tgc ggt	174
Met Ala Ala Val Val Ala Val Cys Gly	
1 5	
ggt cta ggg agg aag aag ttg aca cac ttg gta acg gct gct gtc agc	222
Gly Leu Gly Arg Lys Lys Leu Thr His Leu Val Thr Ala Ala Val Ser	
10 15 20 25	
ctt aca cat ccc ggg act cac acg gtg ctt tgg aga aga ggt tgt tca	270
Leu Thr His Pro Gly Thr His Thr Val Leu Trp Arg Arg Gly Cys Ser	
30 35 40	
caa cag gta tcc agc aat gag gac ctg ctt ttg tcc cag ttt gtt tct	318
Gln Gln Val Ser Ser Asn Glu Asp Leu Leu Leu Ser Gln Phe Val Ser	
45 50 55	
cca ttt act gga tgc att tat gga agg cac att aca ggt ctt tgt ggg	366
Pro Phe Thr Gly Cys Ile Tyr Gly Arg His Ile Thr Gly Leu Cys Gly	
60 65 70	
aag aaa cag aaa gaa atc aca aaa gca att aag aga gct caa ata atg	414
Lys Lys Gln Lys Glu Ile Thr Lys Ala Ile Lys Arg Ala Gln Ile Met	
75 80 85	
ggg ttt atg cca gtt aca tac aag gat cct gca tat ctc aag gac cct	462
Gly Phe Met Pro Val Thr Tyr Lys Asp Pro Ala Tyr Leu Lys Asp Pro	
90 95 100 105	
aaa gtt tgt aa	473
Lys Val Cys	

<210> 1634
 <211> 557
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 148..555

<400> 1634
 atttgaaaaa cctcacctac tctcgcgggt cctcagcggt ctccctgcgga acctttgaac 60
 ggggtactcg agcccacagg ggaagagcag cggaaggggc ctttcggaac gatttggaac 120
 gaaaggaagt ggaagaaacg cggaacc atg gcc gct gtg gtt gct gtt tgc ggt 174
 Met Ala Ala Val Val Ala Val Cys Gly
 1 5
 ggt cta ggg agg aag aag ttg aca cac ttg gta acg gct gct gtc agc 222
 Gly Leu Gly Arg Lys Lys Leu Thr His Leu Val Thr Ala Ala Val Ser
 10 15 20 25
 ctt aca cat ccc ggg act cac acg gtg ctt tgg aga aga ggt tgt tca 270
 Leu Thr His Pro Gly Thr His Thr Val Leu Trp Arg Arg Gly Cys Ser
 30 35 40
 caa cag gta tcc agc aat gag gac ctg ccc att tca atg gaa aat cct 318
 Gln Gln Val Ser Ser Asn Glu Asp Leu Pro Ile Ser Met Glu Asn Pro
 45 50 55
 tat aaa gaa cct ctt aag aaa tgt atc ttg tgt gga aag cat gta gat 366
 Tyr Lys Glu Pro Leu Lys Lys Cys Ile Leu Cys Gly Lys His Val Asp
 60 65 70
 tat aag aat gta cag ctt ttg tcc cag ttt gtt tct cca ttt act gga 414
 Tyr Lys Asn Val Gln Leu Leu Ser Gln Phe Val Ser Pro Phe Thr Gly
 75 80 85
 tgc att tat gga agg cac att aca ggt ctt tgt ggg aag aaa cag aaa 462
 Cys Ile Tyr Gly Arg His Ile Thr Gly Leu Cys Gly Lys Lys Gln Lys
 90 95 100 105
 gaa atc aca aaa gca att aag aga gct caa ata atg ggg ttt atg cca 510
 Glu Ile Thr Lys Ala Ile Lys Arg Ala Gln Ile Met Gly Phe Met Pro
 110 115 120
 gtt aca tac aag gat cct gca tat ctc aag gac cct aaa gtt tgt aa 557
 Val Thr Tyr Lys Asp Pro Ala Tyr Leu Lys Asp Pro Lys Val Cys
 125 130 135

<210> 1635
 <211> 281
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 34..279

<400> 1635
 agcgggcggc gaaggcggcg gcgagcagca acc atg tcg gtg ttc ggg aag ctg 54

004220"66667550

004220-05400

	Met	Ser	Val	Phe	Gly	Lys	Leu	
	1				5			
ttc ggg gct gga ggg ggt aag gcc ggc aag ggc ggc ccg acc ccc cag								102
Phe Gly Ala Gly Gly Gly Lys Ala Gly Lys Gly Gly Pro Thr Pro Gln								
10 15 20								
gag gcc atc cag cgg ctg cgg gac acg gaa gag atg tta agc aag aaa								150
Glu Ala Ile Gln Arg Leu Arg Asp Thr Glu Glu Met Leu Ser Lys Lys								
25 30 35								
cag gag ttc ctg gag aag aaa atc gag cag gag ctg acg gcc gcc aag								198
Gln Glu Phe Leu Glu Lys Lys Ile Glu Gln Glu Leu Thr Ala Ala Lys								
40 45 50 55								
aag cac ggc acc aaa aac aag cgc gcg gcc ctc cag gca ctg aag cgt								246
Lys His Gly Thr Lys Asn Lys Arg Ala Ala Leu Gln Ala Leu Lys Arg								
60 65 70								
aag awg agg tat gak aag cag ctg gcg cag atc ga								281
Lys Xaa Arg Tyr Xaa Lys Gln Leu Ala Gln Ile								
75 80								

<210> 1636
 <211> 380
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 60..380

<400> 1636	
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atg ggg aaa atc gcg ctg caa ctc aaa gcc acg ctg gag aac atc acc	107
Met Gly Lys Ile Ala Leu Gln Leu Lys Ala Thr Leu Glu Asn Ile Thr	
1 5 10 15	
aac ctc cgg ccc gtg ggc gag gac ttc cgg tgg tac ctg aag atg aaa	155
Asn Leu Arg Pro Val Gly Glu Asp Phe Arg Trp Tyr Leu Lys Met Lys	
20 25 30	
tgt ggc aac tgt ggt gag att tcg gac aag tgg cag tac atc cgg ctg	203
Cys Gly Asn Cys Gly Glu Ile Ser Asp Lys Trp Gln Tyr Ile Arg Leu	
35 40 45	
atg gac agt gtg gca ctg aag ggg ggc cgt ggc agt gct tcc atg gtc	251
Met Asp Ser Val Ala Leu Lys Gly Gly Arg Gly Ser Ala Ser Met Val	
50 55 60	
cag aag tgc aag ctg tgt gca aga gaa aat tcc atc gag att tta agc	299
Gln Lys Cys Lys Leu Cys Ala Arg Glu Asn Ser Ile Glu Ile Leu Ser	
65 70 75 80	
agc acc atc aag cct tac aat gct gaa gac aat gag aac ttc aag aca	347
Ser Thr Ile Lys Pro Tyr Asn Ala Glu Asp Asn Glu Asn Phe Lys Thr	
85 90 95	
ata gtg gag ttt gag tgc cgg ggc acg ggg gat	380
Ile Val Glu Phe Glu Cys Arg Gly Thr Gly Asp	
100 105	

<210> 1637
 <211> 506

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 190..504

<400> 1637
gccccgctcc tgcgccgccc cttccgaggc taaatcggtc gcgttcctct cggaacgcgc 60
cgcagaaggg gtccctggta cgagtcgccg gttctctcct tgaatccact cgccagcccg 120
ccgccctctg ccgccgcacc ctgcacaccc gccctctctc tgtgccagga acttgctact 180
accagcacc atg ccc tac caa tat cca gca ctg acc ccg gag cag aag aag 231
Met Pro Tyr Gln Tyr Pro Ala Leu Thr Pro Glu Gln Lys Lys
1 5 10
gag ctg tct gac atc gct cac cgc atc gtg gca cct ggc aag ggc atc 279
Glu Leu Ser Asp Ile Ala His Arg Ile Val Ala Pro Gly Lys Gly Ile
15 20 25 30
ctg gct gca gat gag tcc act ggg agc att gcc aag cgg ctg cag tcc 327
Leu Ala Ala Asp Glu Ser Thr Gly Ser Ile Ala Lys Arg Leu Gln Ser
35 40 45
att ggc acc gag aac acc gag gag aac cgg cgc ttc tac cgc cag ctg 375
Ile Gly Thr Glu Asn Thr Glu Glu Asn Arg Arg Phe Tyr Arg Gln Leu
50 55 60
ctg ctg aca gct gac gac cgc gtg anc ccc tgc att ggg ggt gtc atc 423
Leu Leu Thr Ala Asp Asp Arg Val Xaa Pro Cys Ile Gly Gly Val Ile
65 70 75
ctc ttc cat gag aya ctc tac cag ang gcg gat gat ggg cgt ccy ttc 471
Leu Phe His Glu Xaa Leu Tyr Gln Xaa Ala Asp Asp Gly Arg Pro Phe
80 85 90
ccc caa gtt atc aaa tcc aag ggc ggt gtt gtg gg 506
Pro Gln Val Ile Lys Ser Lys Gly Gly Val Val
95 100 105

<210> 1638
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 205..519

<400> 1638
accacacaca agtgttatag gaggagtctg gcccttgagt accgggtacg caggggtgcc 60
tcaaccacac tccgtccacg gactctccgt tatttttagga ggtccctggc caaagattta 120
tttctcttga caaccaaggg cctccgtctg gatttccaag gaagaatttc ctctgaagca 180
ccggaacttg ctactaccag cacc atg ccc tac caa tat cca gca ctg acc 231
Met Pro Tyr Gln Tyr Pro Ala Leu Thr
1 5
ccg gag cag aag aag gag ctg tct gac atc gct cac cgc atc gtg gca 279
Pro Glu Gln Lys Lys Glu Leu Ser Asp Ile Ala His Arg Ile Val Ala
10 15 20 25

cct ggc aag ggc atc ctg gct gca gat gag tcc act ggg agc att gcc	327
Pro Gly Lys Gly Ile Leu Ala Ala Asp Glu Ser Thr Gly Ser Ile Ala	
30 35 40	
aag cgg ctg cag tcc att ggc acc gag aac acc gag gag aac cgg cgc	375
Lys Arg Leu Gln Ser Ile Gly Thr Glu Asn Thr Glu Glu Asn Arg Arg	
45 50 55	
ttc tac cgc cag ctg ctg ctg aca gct gac gac cgc gtg aac ccc tgc	423
Phe Tyr Arg Gln Leu Leu Leu Thr Ala Asp Asp Arg Val Asn Pro Cys	
60 65 70	
att ggg ggt gtc atc ctc ttc cat gag aca ctc tac cag aag gcg gat	471
Ile Gly Gly Val Ile Leu Phe His Glu Thr Leu Tyr Gln Lys Ala Asp	
75 80 85	
gat ggg cgt ccn ttc ccc caa gtt atc aaa tcc aag ggc ggt gtt gtg	519
Asp Gly Arg Pro Phe Pro Gln Val Ile Lys Ser Lys Gly Gly Val Val	
90 95 100 105	
gg	521

<210> 1639
 <211> 557
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 241..555

<400> 1639	
aaaccagggc tccagagaat cagaacagcc accatcacccg caggamgtca agggaggagg	60
gagattagag aaggagccag ggaggggtggc agggaggcca cgtgatccga gtsccctcac	120
ccctttcctt cccacaggtc cctggccaaa gatttatttc tcttgacaac caagggcctc	180
cgtctggatt tccaaggaag aatttctctt gaagcaccgg aacttgctac taccagcacc	240
atg ccc tac caa tat cca gca ctg acc ccg gag cag aag aag gag ctg	288
Met Pro Tyr Gln Tyr Pro Ala Leu Thr Pro Glu Gln Lys Lys Glu Leu	
1 5 10 15	
tct gac atc gct cac cgc atc gtg gca cct ggc aag ggc atc ctg gct	336
Ser Asp Ile Ala His Arg Ile Val Ala Pro Gly Lys Gly Ile Leu Ala	
20 25 30	
gca gat gag tcc act ggg agc att gcc aag cgg ctg cag tcc att ggc	384
Ala Asp Glu Ser Thr Gly Ser Ile Ala Lys Arg Leu Gln Ser Ile Gly	
35 40 45	
acc gag aac acc gag gag aac cgg cgc ttc tac cgc cag ctg ctg ctg	432
Thr Glu Asn Thr Glu Glu Asn Arg Arg Phe Tyr Arg Gln Leu Leu Leu	
50 55 60	
aca gct gac gac cgc gtg aac ccc tgc att ggg ggt gtc atc ctc ttc	480
Thr Ala Asp Asp Arg Val Asn Pro Cys Ile Gly Gly Val Ile Leu Phe	
65 70 75 80	
cat gag aca ctc tac cag aag gcg gat gat ggg cgt ccy ttc ccc caa	528
His Glu Thr Leu Tyr Gln Lys Ala Asp Asp Gly Arg Pro Phe Pro Gln	
85 90 95	
gtt atc aaa tcc aag ggc ggt gtt gtg gg	557
Val Ile Lys Ser Lys Gly Gly Val Val	
100 105	

<210> 1640
 <211> 573
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 257..571

<400> 1640
 accacacaca agtgttatag gaggagtctg gcccttgagt accgggtacg caggggtgcc 60
 tcaaccacac tccgtccacg gactctccgt tatttttagga ggtccctggc caaagattta 120
 tttctcttga caaccaaggg cctccgtctg gatttccaag gaagaatttc ctctgaagca 180
 ccgcccgcgc cctctgccc cgcaccctg cacaccgcc cctctcctgt gccaggaact 240
 tgctactacc agcacc atg ccc tac caa tat cca gca ctg acc ccg gag cag 292
 Met Pro Tyr Gln Tyr Pro Ala Leu Thr Pro Glu Gln
 1 5 10
 aag aag gag ctg tct gac atc gct cac cgc atc gtg gca cct ggc aag 340
 Lys Lys Glu Leu Ser Asp Ile Ala His Arg Ile Val Ala Pro Gly Lys
 15 20 25
 ggc atc ctg gct gca gat gag tcc act ggg agc att gcc aag cgg ctg 388
 Gly Ile Leu Ala Ala Asp Glu Ser Thr Gly Ser Ile Ala Lys Arg Leu
 30 35 40
 cag tcc att ggc acc gag aac acc gag gag aac cgg cgc ttc tac cgc 436
 Gln Ser Ile Gly Thr Glu Asn Thr Glu Glu Asn Arg Arg Phe Tyr Arg
 45 50 55 60
 cag ctg ctg ctg aca gct gac gac cgc gtg anc ccc tgc att ggg ggt 484
 Gln Leu Leu Leu Thr Ala Asp Asp Arg Val Xaa Pro Cys Ile Gly Gly
 65 70 75
 gtc atc ctc ttc cat gag aya ctc tac cag ang gcg gat gat ggg cgt 532
 Val Ile Leu Phe His Glu Xaa Leu Tyr Gln Xaa Ala Asp Asp Gly Arg
 80 85 90
 ccy ttc ccc caa gtt atc aaa tcc aag ggc ggt gtt gtg gg 573
 Pro Phe Pro Gln Val Ile Lys Ser Lys Gly Gly Val Val
 95 100 105

<210> 1641
 <211> 609
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 293..607

<400> 1641
 aaaccagggc tccagagaat cagaacagcc accatcaccg caggamgtca agggaggagg 60
 gagattagag aaggagccag ggagggtggc agggaggcca cgtgatccga gtscctcac 120
 ccttttctt cccacaggtc cctggccaaa gatttatttc tcttgacaac caagggcctc 180
 cgtctggatt tccaaggaag aatttctctt gaagcaccgc ccgcccgcct ctgccgcgc 240
 accctgcaca cccgcccctc tctgtgtcca ggaacttgct actaccagca cc atg ccc 298
 Met Pro

Leu Gly Asn Ile Arg Ala Glu Pro Leu Asn Ser Val Ala
 85 90 95

<210> 1643
 <211> 503
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 346..501

<400> 1643
 aaggacgcgt cccgagggcg ggtggcagcc attggtggga tgagcaatcc gagttcccgg 60
 atgaggggaac attctgcagt ataaagggag caggggaaggc gggagacagc gcagtttgaa 120
 tcgcggtgcg acgaaggagt aggtggtggg atctcaccgt ggggccgatt agccttttct 180
 ctgccttgct tgcttgagct tcagcggaat tcgaaatggc tggcggtaag gctggaaaagg 240
 actccggaag ggccaagaca aaggcgggtt cccgctcgca gagagccggc ttgcagttcc 300
 cagtgggccc tattcatcga cacctaaaat ctaggacgac cagtc atg gac gtg tgg 357
 Met Asp Val Trp
 1
 gcg cga ctg ccg ctg tgt aca ggc asc atc ctg gag tac ctc acc gca 405
 Ala Arg Leu Pro Leu Cys Thr Gly Xaa Ile Leu Glu Tyr Leu Thr Ala
 5 10 15 20
 gag gta ctt gaa ctg gca gga aat gca tca aaa gac tta aag gta aag 453
 Glu Val Leu Glu Leu Ala Gly Asn Ala Ser Lys Asp Leu Lys Val Lys
 25 30 35
 cgt att acc cct cgt cac ttg caa ctt gct att cgt gga gat gaa gaa 501
 Arg Ile Thr Pro Arg His Leu Gln Leu Ala Ile Arg Gly Asp Glu Glu
 40 45 50
 tt 503

<210> 1644
 <211> 471
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 77..469

<400> 1644
 acttagaatc ggcaaatcat agagagaagc taaatgctct cagctgcact ataccaaatc 60
 aaagctgaga tgaata atg aac tta att ttc cat aaa gac att ctg ttt ggc 112
 Met Asn Leu Ile Phe His Lys Asp Ile Leu Phe Gly
 1 5 10
 att cca gct aat aag gtt cca caa gat gaa tgg aca ggg tac acc cca 160
 Ile Pro Ala Asn Lys Val Pro Gln Asp Glu Trp Thr Gly Tyr Thr Pro
 15 20 25
 cga ggt aaa gat gat gaa att cca tgc cga aga atg cgg agt ggc agt 208
 Arg Gly Lys Asp Asp Glu Ile Pro Cys Arg Arg Met Arg Ser Gly Ser
 30 35 40

tat atc aag gcc atg ggg gat gaa gac agt gga gac tca gac acg agt	256
Tyr Ile Lys Ala Met Gly Asp Glu Asp Ser Gly Asp Ser Asp Thr Ser	
45 50 55 60	
cct aag cct tct cca aaa gtt gct gcg cgg aga gaa agc tat ctc aag	304
Pro Lys Pro Ser Pro Lys Val Ala Ala Arg Arg Glu Ser Tyr Leu Lys	
65 70 75	
gct act cag cca tcc ctt aca gaa ctc acc aca ctc aaa atc tcc aat	352
Ala Thr Gln Pro Ser Leu Thr Glu Leu Thr Thr Leu Lys Ile Ser Asn	
80 85 90	
gaa cac tca ccc aaa ctc cag atc cgg agt cat agt tac ctg agg gca	400
Glu His Ser Pro Lys Leu Gln Ile Arg Ser His Ser Tyr Leu Arg Ala	
95 100 105	
gtg agt gaa gtc tcc atc aac cgg agc ctg gac agc ctg gac ctg cag	448
Val Ser Glu Val Ser Ile Asn Arg Ser Leu Asp Ser Leu Asp Leu Gln	
110 115 120	
ctt gct cac atc acc aaa gty cg	471
Leu Ala His Ile Thr Lys Val	
125 130	

<210> 1645
 <211> 295
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 64..294

<400> 1645	
aaaaaactgt ttaattctca gttgagatgt gggtggctct tatacatttg gaataaagca	60
ttt atg gca cat ctc agg gtt cca caa gat gaa tgg aca ggg tac acc	108
Met Ala His Leu Arg Val Pro Gln Asp Glu Trp Thr Gly Tyr Thr	
1 5 10 15	
cca cga ggt aaa gat gat gaa att cca tgc cga aga atg cgg agt ggc	156
Pro Arg Gly Lys Asp Asp Glu Ile Pro Cys Arg Arg Met Arg Ser Gly	
20 25 30	
agt tat atc aag gcc atg ggg gat gaa gac agt gga gac tca gac acg	204
Ser Tyr Ile Lys Ala Met Gly Asp Glu Asp Ser Gly Asp Ser Asp Thr	
35 40 45	
agt cct aag cct tct cca aaa gtt gct gcg cgg aga gaa agc tat ctc	252
Ser Pro Lys Pro Ser Pro Lys Val Ala Ala Arg Arg Glu Ser Tyr Leu	
50 55 60	
aag gct act cag cca tcc ctt aca gaa ctc acc aca ctc aaa a	295
Lys Ala Thr Gln Pro Ser Leu Thr Glu Leu Thr Thr Leu Lys	
65 70 75	

<210> 1646
 <211> 457
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 228..455

<400> 1646

attttccggt gggggcgccg cgcccagtg gggcccgaw gtgggtcgcg cgnngattgc 60
tgggcggttc ttgccgkaag cggagagcgg ctgatcgag tccggagggtg aggcggaact 120
ctgagcgtgg tccattatgg ctgacatgca aaatctggtg gaaagattgg agagggcagt 180
gggcccgtg gaggcagtat ctcatacctc tgacatgcac cgtgggt atg cag aca 236
Met Gln Thr
1
gtc ctt caa aag cga gca gct cca tat gtg cag gca ttt gac tcg ctg 284
Val Leu Gln Lys Arg Ala Ala Pro Tyr Val Gln Ala Phe Asp Ser Leu
5 10 15
ctt gct ggt cct gtg gca gag tac ttg aag atc agt aaa gag att ggg 332
Leu Ala Gly Pro Val Ala Glu Tyr Leu Lys Ile Ser Lys Glu Ile Gly
20 25 30 35
gga gac gtg cag aaa cat gcg gag atg gtc cac aca ggt ttg aag ttg 380
Gly Asp Val Gln Lys His Ala Glu Met Val His Thr Gly Leu Lys Leu
40 45 50
gag cga gct ctg ttg gtn nag ctt ctc agt gtc aac agc cag cag aaa 428
Glu Arg Ala Leu Leu Val Xaa Leu Leu Ser Val Asn Ser Gln Gln Lys
55 60 65
ata agc ttt ccg att tgt tgg cac cca tc 457
Ile Ser Phe Pro Ile Cys Trp His Pro
70 75

<210> 1647

<211> 441

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 119..439

<400> 1647

attttccggt gggggcgccg cgcccagtg gggcccgaw gtgggtcgcg cgnngattgc 60
tgggcggttc ttgccggaag cggagagcgg ctgatcgag tccggagcgt ggtccatt 118
atg gct gac atg caa aat ctg gta gaa aga ttg gag agg gca gtg ggc 166
Met Ala Asp Met Gln Asn Leu Val Glu Arg Leu Glu Arg Ala Val Gly
1 5 10 15
cgc ctg gag gca gta tct cat acc tct gac atg cac cgt ggg tat gca 214
Arg Leu Glu Ala Val Ser His Thr Ser Asp Met His Arg Gly Tyr Ala
20 25 30
gac agt cct tca aaa gca gga gca gct cca tat gtg cag gca ttt gac 262
Asp Ser Pro Ser Lys Ala Gly Ala Ala Pro Tyr Val Gln Ala Phe Asp
35 40 45
tcg ctg ctt gct ggt cct gtg gca gag tac ttg aag atc agt aaa gag 310
Ser Leu Leu Ala Gly Pro Val Ala Glu Tyr Leu Lys Ile Ser Lys Glu
50 55 60
att ggg gga gac gtg cag aaa cat gcg gag atg gtc cac aca ggt ttg 358
Ile Gly Gly Asp Val Gln Lys His Ala Glu Met Val His Thr Gly Leu
65 70 75 80

[illegible]

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<220>  
<221> CDS  
<222> 114..548
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<210> 1649
<211> 416
<212> DNA
<213> Homo sapiens
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<220>
 <221> CDS
 <222> 140..415

<400> 1649
 agagccgcgc gccgggaggc aatgtaagat ggcggagtag caacgcaaag cgcttggtat 60
 tgagtctgtg gccgacttcg gttccggtct ctgcagcagc cgtgatcgct tagtggagtg 120
 cttagggtag ttggccagg atg ccg aat atc aaa atc ttc agc ggc agc tcc 172
 Met Pro Asn Ile Lys Ile Phe Ser Gly Ser Ser
 1 5 10
 cac cag gac tta tct cag aaa att gct gac cgc ctg ggc ctg gag cta 220
 His Gln Asp Leu Ser Gln Lys Ile Ala Asp Arg Leu Gly Leu Glu Leu
 15 20 25
 ggc aag gtg gtg act aag aaa ttc agc aac cag gag acc tgt gtg gaa 268
 Gly Lys Val Val Thr Lys Lys Phe Ser Asn Gln Glu Thr Cys Val Glu
 30 35 40
 att ggt gaa agt gta cgt gga gag gat gtc tac att gtt cag agt ggt 316
 Ile Gly Glu Ser Val Arg Gly Glu Asp Val Tyr Ile Val Gln Ser Gly
 45 50 55
 tgt ggc gaa atc aat gac aat tta atg gag ctt ttg atc atg att aat 364
 Cys Gly Glu Ile Asn Asp Asn Leu Met Glu Leu Leu Ile Met Ile Asn
 60 65 70 75
 gcc tgc aag att gct tca gcc agc cgg gtt act gca gtc atc cca tgc 412
 Ala Cys Lys Ile Ala Ser Ala Ser Arg Val Thr Ala Val Ile Pro Cys
 80 85 90
 ttc c 416
 Phe

<210> 1650
 <211> 378
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 61..378

<400> 1650
 gttccgaggc gccgccggga gctgccacgt ccgagacctg gagcagccac cgccgcaatc 60
 atg gtg tca gta att aac act gtg gat acc tcc cat gag gac atg att 108
 Met Val Ser Val Ile Asn Thr Val Asp Thr Ser His Glu Asp Met Ile
 1 5 10 15
 cac gac gcc cag atg gac tac tat ggc acc cgc ctg gca acc tgc tca 156
 His Asp Ala Gln Met Asp Tyr Tyr Gly Thr Arg Leu Ala Thr Cys Ser
 20 25 30
 tca gac agg tcc gtc aaa atc ttt gat gtg cgc aat gga ggg cag atc 204
 Ser Asp Arg Ser Val Lys Ile Phe Asp Val Arg Asn Gly Gly Gln Ile
 35 40 45
 ctt atc gcc gac ctg agg ggt cat gag ggt cct gtg tgg caa gtg gcc 252
 Leu Ile Ala Asp Leu Arg Gly His Glu Gly Pro Val Trp Gln Val Ala
 50 55 60


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5          10          15          20
gtc tac ctt ctt ctg atc cag aca gac ccc ctg gag ggg gtg aac atc 152
Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu Gly Val Asn Ile
          25          30          35
acc agc ccc gtg cgc ctg atc cat ggc acc gtg ggg aag tcg gct ctg 200
Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys Ser Ala Leu
          40          45          50
ctt tct gtg cag tac agc a 219
Leu Ser Val Gln Tyr Ser
          55

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<210> 1653

<211> 402

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 90..401

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<400> 1653
gttttttccct ccaggctaag tccatcttcc ggcttgggca gacgctgccg cggaatcctt 60
gactctagtt ttctgagtcg attgtgatac atg gct gct gag tct gat gtt ctg 113
                               Met Ala Ala Glu Ser Asp Val Leu
                               1           5
cat ttc cag ttt gaa cag caa gga gat gtg gtc ttg cag aaa atg aat 161
His Phe Gln Phe Glu Gln Gln Gly Asp Val Val Leu Gln Lys Met Asn
          10          15          20
ctt ttg aga cag cag aat tta ttt tgt gat gta tca att tac att aat 209
Leu Leu Arg Gln Gln Asn Leu Phe Cys Asp Val Ser Ile Tyr Ile Asn
          25          30          35          40
gac act gag ttc cag ggg cac aag gtg att ttg gct gct tgc tcc act 257
Asp Thr Glu Phe Gln Gly His Lys Val Ile Leu Ala Ala Cys Ser Thr
          45          50          55
ttt atg aga gat cag ttt tta ctc aca cag tca aaa cat gtc aga atc 305
Phe Met Arg Asp Gln Phe Leu Leu Thr Gln Ser Lys His Val Arg Ile
          60          65          70
acc atc tta cag agt gca gaa gtt ggc aga aaa ttg tta ctg tct tgc 353
Thr Ile Leu Gln Ser Ala Glu Val Gly Arg Lys Leu Leu Leu Ser Cys
          75          80          85
wrt act gga gca ctt gaa gtt aaa agg aaa gag ctt ttg aaa tac ttg a 402
Xaa Thr Gly Ala Leu Glu Val Lys Arg Lys Glu Leu Leu Lys Tyr Leu
          90          95          100

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<210> 1654

<211> 412

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 224..412

<400> 1654

aagtcagggtg gttgtcggat ttttagaggaa ggcgcctcgggt tacattggag aactggagtg 60
 gtctggagtt ccacgggtgta gtggaccaga ggccacctct cctgggcttc tcagtgtctc 120
 gccggcggggg ttcggcctga gctggattga catagccctt ggcggattta aacaacctaa 180
 acattaagca gtacagctgc ctcaaaccctt tgggattttc aga atg act gac act 235
 Met Thr Asp Thr

1

gcc gaa gct gtt cca aag ttt gaa gag atg ttt gct agt aga ttc aca 283
 Ala Glu Ala Val Pro Lys Phe Glu Glu Met Phe Ala Ser Arg Phe Thr
 5 10 15 20

gaa aat gac aag gag tat cag gaa tac ctg aaa cgc cct cct gag tct 331
 Glu Asn Asp Lys Glu Tyr Gln Glu Tyr Leu Lys Arg Pro Pro Glu Ser
 25 30 35

cct cca att gtt gag gaa tgg aat agc aga gct ggt ggg aac aaa gaa 379
 Pro Pro Ile Val Glu Glu Trp Asn Ser Arg Ala Gly Gly Asn Lys Glu
 40 45 50

aca gag gca atc ggt tgc aag aca aca gac agt 412
 Thr Glu Ala Ile Gly Cys Lys Thr Thr Asp Ser
 55 60

<210> 1655

<211> 530

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 80..529

<400> 1655

agactgtgcg gtcacttccg gcccgaggagc gcgcggggttg attcgtcctt cctcagccgc 60
 ggggtgatcgt agctcggaa atg gcg gga ttt ggt gct atg gag aaa ttt ttg 112
 Met Ala Gly Phe Gly Ala Met Glu Lys Phe Leu
 1 5 10

gta gaa tat aag agt gca gtg gag aag aaa ctg gca gag tac aaa tgt 160
 Val Glu Tyr Lys Ser Ala Val Glu Lys Lys Leu Ala Glu Tyr Lys Cys
 15 20 25

aac acc aac aca gca att gaa cta aaa tta gtt cgt ttt cct gaa gat 208
 Asn Thr Asn Thr Ala Ile Glu Leu Lys Leu Val Arg Phe Pro Glu Asp
 30 35 40

ctt gaa aat gac att aga act ttc ttt cct gag tat acc cat caa ctc 256
 Leu Glu Asn Asp Ile Arg Thr Phe Phe Pro Glu Tyr Thr His Gln Leu
 45 50 55

ttt ggg gat gat gaa act gct ttt ggt tac aag ggt cta aag atc ctg 304
 Phe Gly Asp Asp Glu Thr Ala Phe Gly Tyr Lys Gly Leu Lys Ile Leu
 60 65 70 75

tta tac tat att gct ggt agc ctg tca aca atg ttc cgt gtt gaa tat 352
 Leu Tyr Tyr Ile Ala Gly Ser Leu Ser Thr Met Phe Arg Val Glu Tyr
 80 85 90

gca tct aaa gtt gat gag aac ttt gac tgt gta gag nna gat gat gtt 400
 Ala Ser Lys Val Asp Glu Asn Phe Asp Cys Val Glu Xaa Asp Asp Val
 95 100 105

<221> CDS
<222> 56..454

<400> 1657

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agaggggaaag cgagaggggag acggacgttg agagaacgag gaggaaggag agaaa atg      58
                                         Met
                                         1
gcg tcc acg gat tac agt acc tat agc caa gct gca gcg cac agg gct      106
Ala Ser Thr Asp Tyr Ser Thr Tyr Ser Gln Ala Ala Ala His Arg Ala
      5              10              15
aca gtg ctt aca ccg ccc agc cca ctc aag gat atg cac aga cca ccc      154
Thr Val Leu Thr Pro Pro Ser Pro Leu Lys Asp Met His Arg Pro Pro
      20              25              30
agg cat atg ggc aac aaa gct atg gaa cct atg gac agc cca ctg atg      202
Arg His Met Gly Asn Lys Ala Met Glu Pro Met Asp Ser Pro Leu Met
      35              40              45
tca gct ata ccc agg ctc aga cca ctg caa cct atg ggc aga ccg cct      250
Ser Ala Ile Pro Arg Leu Arg Pro Leu Gln Pro Met Gly Arg Pro Pro
      50              55              60              65
atg caa ctt ctt atg gac agc ctc cca ctg gtt ata cta ctc caa ctg      298
Met Gln Leu Leu Met Asp Ser Leu Pro Leu Val Ile Leu Leu Gln Leu
      70              75              80
ccc ccc agg cat aca gcc agc ctg tcc agg ggt atg gca ctg gtg ctt      346
Pro Pro Arg His Thr Ala Ser Leu Ser Arg Gly Met Ala Leu Val Leu
      85              90              95
atg ata cca cca ctg cta cag tca cca cca ccc agg cct cct atg cag      394
Met Ile Pro Pro Leu Leu Gln Ser Pro Pro Pro Arg Pro Pro Met Gln
      100              105              110
ctc agt ctg cat atg gca ctc agc ctg ctt atc cag cct atg ggc agc      442
Leu Ser Leu His Met Ala Leu Ser Leu Leu Ile Gln Pro Met Gly Ser
      115              120              125
agc cag cag cca
Ser Gln Gln Pro
130

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<210> 1658
<211> 338
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 155..337

<400> 1658

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aagagactct ccgagggcggc ggcagagaca gaagagcggg gtcggggccg gctgaccagg      60
aacctgggagc agcagcggcg ggggcccagag ggattctgaa ggaagatttc cattaggtaa      120
tttgtttaat cagtgcgaagc gaaattaagg gaaa atg gat gta gaa aat gag cag      175
                                         Met Asp Val Glu Asn Glu Gln
                                         1              5
ata ctg aat gta aac cct gca gat cct gat aac tta agt gac tct ctc      223
Ile Leu Asn Val Asn Pro Ala Asp Pro Asp Asn Leu Ser Asp Ser Leu

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004220-665E560

10	15	20	
ttt tcc ggt gat gaa gaa aat gct ggg act gag gaa gta aag rat gaa	271		
Phe Ser Gly Asp Glu Glu Asn Ala Gly Thr Glu Glu Val Lys Xaa Glu			
25	30	35	
ata art gga aat tgg att tca gca tcc tcc att aac gaa gct aga att	319		
Ile Xaa Gly Asn Trp Ile Ser Ala Ser Ser Ile Asn Glu Ala Arg Ile			
40	45	50	55
aat gcc aag gca aaa agg c	338		
Asn Ala Lys Ala Lys Arg			
60			

<210> 1659
 <211> 350
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 48..350

<400> 1659	
aaagagagtt tcctaaagcg aggaaaccaa gccgggcgcc tcttgca atg gag acg	56
	Met Glu Thr
	1
gtc att tct tca gat agc tcc cca gct gtg gaa aat gag cat cct caa	104
Val Ile Ser Ser Asp Ser Ser Pro Ala Val Glu Asn Glu His Pro Gln	
5	10
gag acc cca gaa tcc aac aat agc gtg tat act tcc ttc atg aag tct	152
Glu Thr Pro Glu Ser Asn Asn Ser Val Tyr Thr Ser Phe Met Lys Ser	
20	25
cat cgc tgc tat gac ctg att ccc aca agc tcc aaa ttg gtt gta ttt	200
His Arg Cys Tyr Asp Leu Ile Pro Thr Ser Ser Lys Leu Val Val Phe	
40	45
gat acg tcc ctg cag gtg aag aaa gct ttt ttt gct ttg gtg act aac	248
Asp Thr Ser Leu Gln Val Lys Lys Ala Phe Phe Ala Leu Val Thr Asn	
55	60
ggt gta cga gct gcc cct tta tgg gat agt aag aag caa agt ttt gtg	296
Gly Val Arg Ala Ala Pro Leu Trp Asp Ser Lys Lys Gln Ser Phe Val	
70	75
ggc atg ctg acc atc act gat ttc atc aat atc ctg cac cgc tac tat	344
Gly Met Leu Thr Ile Thr Asp Phe Ile Asn Ile Leu His Arg Tyr Tyr	
85	90
aaa tca	350
Lys Ser	
100	

<210> 1660
 <211> 492
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 248..490

<400> 1660

tcttcgcatt gtgagctctc gcggttaagag gctgaggagc cggcctgcaa cctgccgggg 60
cggctccgct acgcgcagcg cctcagtggc ttcctccaca gccacctccg gagggatctg 120
gctgaggagg aagtggaggt gtcactggcc cgggcctttg ccccaatctt gtgtgggcac 180
tgaaggggga ctacaggttc garatacttc ctgcgcgtatt gctaaaggag gagttgrcca 240
caccaaa atg agt cta cat ggt gct agt ggg gga cat kag aga tca aga 289
Met Ser Leu His Gly Ala Ser Gly Gly His Xaa Arg Ser Arg
1 5 10
gat aga cga agg ksa agt gac aga tca cga gat tca tct cat gaa aga 337
Asp Arg Arg Arg Xaa Ser Asp Arg Ser Arg Asp Ser Ser His Glu Arg
15 20 25 30
acg grg tct cag ctc act cct tgt att aga aat gtg act tct cca aca 385
Thr Xaa Ser Gln Leu Thr Pro Cys Ile Arg Asn Val Thr Ser Pro Thr
35 40 45
cgr cag crc cat gtt gaa cga gaa aaa gat cwc agt tcc tct cgt cca 433
Arg Gln Xaa His Val Glu Arg Glu Lys Asp Xaa Ser Ser Ser Arg Pro
50 55 60
agc agt ycg cgt cct caa aaa gca tcc cca aat ggk tcc att agc agt 481
Ser Ser Xaa Arg Pro Gln Lys Ala Ser Pro Asn Gly Ser Ile Ser Ser
65 70 75
kct ggg rac ag 492
Xaa Gly Xaa
80

<210> 1661

<211> 372

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 99..371

<400> 1661

gtgggtacttt tgcagctttg gtgggctccg gcttccttca ctccagcccc ccgcgtccga 60
gagacttagc agggcgtyaa actggcagag rcggragg atg gaa cct ttt att ctc 116
Met Glu Pro Phe Ile Leu
1 5
agg tgg aga gga tta agc ttt gcg gtg tta gca gaa aat gat cga gct 164
Arg Trp Arg Gly Leu Ser Phe Ala Val Leu Ala Glu Asn Asp Arg Ala
10 15 20
cca gaa aat gat ttg gag gtc aga ttc gat ttt aaa gta gta cta aca 212
Pro Glu Asn Asp Leu Glu Val Arg Phe Asp Phe Lys Val Val Leu Thr
25 30 35
ggc cgg gcg cgg tgc ctc acg cct gta atc cta gca ctt tgg gas gcc 260
Gly Arg Ala Arg Cys Leu Thr Pro Val Ile Leu Ala Leu Trp Xaa Ala
40 45 50
gag gtg ggc gga tca cct gag gtt agg agt tcg anr cca ggc ctg acc 308
Glu Val Gly Gly Ser Pro Glu Val Arg Ser Ser Xaa Pro Gly Leu Thr
55 60 65 70

aac atg gtg aaa ccc gtc tct act aaa aat aca aat att agc cgg gcg 356
 Asn Met Val Lys Pro Val Ser Thr Lys Asn Thr Asn Ile Ser Arg Ala
 75 80 85
 tgg tgg cgg gcg ttt g 372
 Trp Trp Arg Ala Phe
 90

<210> 1662
 <211> 221
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 27..221

<400> 1662
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 Met Ala Ser Ile Met Glu Gly Pro Leu
 1 5
 agc aaa tgg act aac gtg atg aag ggc tgg cag tac cgt tgg ttc gtg 101
 Ser Lys Trp Thr Asn Val Met Lys Gly Trp Gln Tyr Arg Trp Phe Val
 10 15 20 25
 ctg gac tac aat gca gga ctg ctc tcc tac tac acg tcc aag gac aaa 149
 Leu Asp Tyr Asn Ala Gly Leu Leu Ser Tyr Tyr Thr Ser Lys Asp Lys
 30 35 40
 atg atg aga ggc tct cgc aga gga tgt gtt aga ctc aga gga gct gtg 197
 Met Met Arg Gly Ser Arg Arg Gly Cys Val Arg Leu Arg Gly Ala Val
 45 50 55
 att ggt ata gac gat gag gac gac 221
 Ile Gly Ile Asp Asp Glu Asp Asp
 60 65

<210> 1663
 <211> 476
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 90..476

<400> 1663
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 agtggcgggc cgctgaataa gcttccaaa atg atg ccc aca cca gtt atc cta 113
 Met Met Pro Thr Pro Val Ile Leu
 1 5
 ttg aaa gag ggg act gat agc tcc caa ggc atc ccc cag ctt gtg agt 161
 Leu Lys Glu Gly Thr Asp Ser Ser Gln Gly Ile Pro Gln Leu Val Ser
 10 15 20
 aac atc agt gcc tgc cag gtg att gct gag gct gta aga act acc ctg 209
 Asn Ile Ser Ala Cys Gln Val Ile Ala Glu Ala Val Arg Thr Thr Leu

25	30	35	40	
ggt ccc cgt ggc atg gac aag ctt att gta gat ggc aga ggc aaa gca				257
Gly Pro Arg Gly Met Asp Lys Leu Ile Val Asp Gly Arg Gly Lys Ala				
	45	50	55	
aca att tct aat gat ggg gcc aca att ctg aaa ctt ctt gat gtt gtc				305
Thr Ile Ser Asn Asp Gly Ala Thr Ile Leu Lys Leu Leu Asp Val Val				
	60	65	70	
cat cct gca gca aag act ttg gta gac att gcc aaa tcc caa gat gct				353
His Pro Ala Ala Lys Thr Leu Val Asp Ile Ala Lys Ser Gln Asp Ala				
	75	80	85	
gag gtg ggt gat ggc acc acc tca gtg acc ttg ctg gct gca gag ttt				401
Glu Val Gly Asp Gly Thr Thr Ser Val Thr Leu Leu Ala Ala Glu Phe				
	90	95	100	
ctg aag cag gtg aaa ncc tat gtg gag gaa ggt tta cac ccc cag atc				449
Leu Lys Gln Val Lys Xaa Tyr Val Glu Glu Gly Leu His Pro Gln Ile				
105	110	115	120	
atc att cga gct ttc cgc aca gcc acc				476
Ile Ile Arg Ala Phe Arg Thr Ala Thr				
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 <211> 552
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 92..550

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agagtggagg gccgctgaat aagcttrcaa a atg atg gat tct cag ctg gta	112
Met Met Asp Ser Gln Leu Val	
	1 5
gct ggt gtt gca ttc aag aag act ttc tct tac gct ggg ttt gaa atg	160
Ala Gly Val Ala Phe Lys Lys Thr Phe Ser Tyr Ala Gly Phe Glu Met	
	10 15 20
caa ccc aaa aag tac cac aat ccc aag att gcc ctt ttg aat gtc gag	208
Gln Pro Lys Lys Tyr His Asn Pro Lys Ile Ala Leu Leu Asn Val Glu	
	25 30 35
ctc gag ttg aaa gct gag aaa gac aat gct gag ata aga gtc cac aca	256
Leu Glu Leu Lys Ala Glu Lys Asp Asn Ala Glu Ile Arg Val His Thr	
	40 45 50 55
gtt gag gat tat cag gca att gtt gat gct gag tgg aac att ctc tat	304
Val Glu Asp Tyr Gln Ala Ile Val Asp Ala Glu Trp Asn Ile Leu Tyr	
	60 65 70
gac aag tta gag aag atc cat cat tct gga gcc aaa gtt gtc ttg tcc	352
Asp Lys Leu Glu Lys Ile His His Ser Gly Ala Lys Val Val Leu Ser	
	75 80 85
aaa ctc ccc att ggg gat gtg gcc acc cag tac ttt gct gac agg gac	400
Lys Leu Pro Ile Gly Asp Val Ala Thr Gln Tyr Phe Ala Asp Arg Asp	
	90 95 100
atg ttc tgt gct ggc cga gta cct gag gag gat ctt aag agg aca atg	448

Met	Phe	Cys	Ala	Gly	Arg	Val	Pro	Glu	Glu	Asp	Leu	Lys	Arg	Thr	Met		
105						110				115							
atg	gcc	tgt	gga	ggc	tca	atc	cag	acc	agt	gtg	aat	gct	ctg	tca	gca	496	
Met	Ala	Cys	Gly	Gly	Ser	Ile	Gln	Thr	Ser	Val	Asn	Ala	Leu	Ser	Ala		
120					125					130				135			
gat	gtg	ctg	ggt	cga	tgc	cag	gtg	ttt	gaa	gag	acc	cag	att	gga	ggc	544	
Asp	Val	Leu	Gly	Arg	Cys	Gln	Val	Phe	Glu	Glu	Thr	Gln	Ile	Gly	Gly		
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gag	agg	ta														552	
Glu	Arg																

<210> 1665

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 37..399

<400> 1665

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				Met	Ser	Ser	Phe	Ser	Arg								
				1				5									
gcg	ccc	cag	caa	tgg	gcc	act	ttt	gct	aga	ata	tgg	tat	ctc	tta	gat	102	
Ala	Pro	Gln	Gln	Trp	Ala	Thr	Phe	Ala	Arg	Ile	Trp	Tyr	Leu	Leu	Asp		
			10				15						20				
ggg	aaa	atg	cag	cca	cct	ggc	aaa	ctt	gct	gct	atg	gca	tct	ata	aga	150	
Gly	Lys	Met	Gln	Pro	Pro	Gly	Lys	Leu	Ala	Ala	Met	Ala	Ser	Ile	Arg		
		25				30					35						
ctt	cag	gga	tta	cat	aaa	cct	gtg	tac	cat	gca	ctg	agt	gac	tgt	ggg	198	
Leu	Gln	Gly	Leu	His	Lys	Pro	Val	Tyr	His	Ala	Leu	Ser	Asp	Cys	Gly		
		40			45					50							
gat	cat	gtt	gtt	ata	atg	aac	aca	aga	cac	att	gca	ttt	tct	gga	aac	246	
Asp	His	Val	Val	Ile	Met	Asn	Thr	Arg	His	Ile	Ala	Phe	Ser	Gly	Asn		
					60				65					70			
aaa	tgg	gaa	caa	aaa	gta	tac	tct	tcg	cat	act	ggc	tac	cca	ggt	gga	294	
Lys	Trp	Glu	Gln	Lys	Val	Tyr	Ser	Ser	His	Thr	Gly	Tyr	Pro	Gly	Gly		
			75				80						85				
ttt	aga	caa	gta	aca	gct	gct	cag	ctt	cac	ctg	agg	gat	cca	gtg	gca	342	
Phe	Arg	Gln	Val	Thr	Ala	Ala	Gln	Leu	His	Leu	Arg	Asp	Pro	Val	Ala		
			90				95						100				
att	gta	aaa	cta	gct	att	tat	ggc	atg	ctg	cca	aaa	aac	ctt	cac	aga	390	
Ile	Val	Lys	Leu	Ala	Ile	Tyr	Gly	Met	Leu	Pro	Lys	Asn	Leu	His	Arg		
		105					110					115					
aga	aca	atg	at													401	
Arg	Thr	Met															
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<210> 1666

<211> 477

<212> DNA

<213> Homo sapiens

<220>
 <221> CDS
 <222> 96..476

<400> 1666
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 atcgatcaag ggtaaaattc cattctgata tcaaa atg cag tat tcg cac cay 113
 Met Gln Tyr Ser His His
 1 5
 tgt gag cac ctt tta gag aga ctg aac aaa cag cgg gaa gca ggt ttt 161
 Cys Glu His Leu Leu Glu Arg Leu Asn Lys Gln Arg Glu Ala Gly Phe
 10 15 20
 ctc tgt gac tgt acc ata gtg att ggg gaa ttc cag ttt aaa gct cat 209
 Leu Cys Asp Cys Thr Ile Val Ile Gly Glu Phe Gln Phe Lys Ala His
 25 30 35
 agg aat gtg ctg gcc tcc ttt agt gag tat ttt ggt gcg atc tac aga 257
 Arg Asn Val Leu Ala Ser Phe Ser Glu Tyr Phe Gly Ala Ile Tyr Arg
 40 45 50
 agc act tct gag aac aat gtc ttt ctt gat cag agt cag gtg aag gct 305
 Ser Thr Ser Glu Asn Asn Val Phe Leu Asp Gln Ser Gln Val Lys Ala
 55 60 65 70
 gat gga ttt cag aaa ctg ttg gag ttt ata tac aca gga act tta aat 353
 Asp Gly Phe Gln Lys Leu Leu Glu Phe Ile Tyr Thr Gly Thr Leu Asn
 75 80 85
 ctt gac agt tgg aat gtt aaa gaa att cat cag gct gct gac tat ctc 401
 Leu Asp Ser Trp Asn Val Lys Glu Ile His Gln Ala Ala Asp Tyr Leu
 90 95 100
 aaa gtg gaa gag gtg gtc act aaa tgc aaa ata nag atg gaa gat ttt 449
 Lys Val Glu Glu Val Val Thr Lys Cys Lys Ile Xaa Met Glu Asp Phe
 105 110 115
 gct ttt att gct aat cct tct tct aca g 477
 Ala Phe Ile Ala Asn Pro Ser Ser Thr
 120 125

<210> 1667
 <211> 364
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 100..363

<400> 1667
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 gtgtcaccgc cggaacctgg cgcagggttaa ttatagaaa atg cca agt agg aaa 114
 Met Pro Ser Arg Lys
 1 5
 ttt gcc gat ggt gaa gtg gta aga ggt cga tgg cct ggg agt tca ctt 162
 Phe Ala Asp Gly Glu Val Val Arg Gly Arg Trp Pro Gly Ser Ser Leu
 10 15 20

tat tat gaa gta gaa att ctg agc cac gac agc acc tcc cag ctt tac	210
Tyr Tyr Glu Val Glu Ile Leu Ser His Asp Ser Thr Ser Gln Leu Tyr	
25 30 35	
act gta aag tat aaa gat gga aca gag ctt gaa ttg aaa gag aat gat	258
Thr Val Lys Tyr Lys Asp Gly Thr Glu Leu Glu Leu Lys Glu Asn Asp	
40 45 50	
att aag cct tta act tcc ttt agg caa agg aaa ggt ggc tca aac kcc	306
Ile Lys Pro Leu Thr Ser Phe Arg Gln Arg Lys Gly Gly Ser Asn Xaa	
55 60 65	
agt tcc cct tcc aga cgc cga ggg agt cga tca agg tca cgc tcc cga	354
Ser Ser Pro Ser Arg Arg Arg Gly Ser Arg Ser Arg Ser Arg Ser Arg	
70 75 80 85	
tcc cct ggt c	364
Ser Pro Gly	

<210> 1668
 <211> 234
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 9..233

<400> 1668	
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Met Pro Ser Val Ser Lys Ala Ala Ala Ala Ala Leu Ser Gly	
1 5 10	
tcc ccc ccg cag acg gag aag ccg acc cac tac agg tac ctg aag gag	98
Ser Pro Pro Gln Thr Glu Lys Pro Thr His Tyr Arg Tyr Leu Lys Glu	
15 20 25 30	
ttc agg acg gag cag tgc ccc ctg ttt tca cag cac aag tgc gcg cag	146
Phe Arg Thr Glu Gln Cys Pro Leu Phe Ser Gln His Lys Cys Ala Gln	
35 40 45	
acc ggc cgt tca cct gct tcc act ggc act tcc tca acc agc ggc gcc	194
Thr Gly Arg Ser Pro Ala Ser Thr Gly Thr Ser Ser Thr Ser Gly Ala	
50 55 60	
gca ggc cct ccg cag gcg cga cgg cac ctt caa cta cag c	234
Ala Gly Pro Pro Gln Ala Arg Arg His Leu Gln Leu Gln	
65 70 75	

<210> 1669
 <211> 508
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 189..506

<400> 1669	
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cgtccttgag gacgccgtgc cgggtcagtg ttagcctcca gccctggttg tggaaggcga 180
cagaagtc atg gcg atg ttt gag cag atg aga gcc aac gtg ggc aag ttg 230
      Met Ala Met Phe Glu Gln Met Arg Ala Asn Val Gly Lys Leu
      1          5          10
ctc aag ggt atc gac agg tac aat cct gag aac ctg gcc acc ctg gag 278
Leu Lys Gly Ile Asp Arg Tyr Asn Pro Glu Asn Leu Ala Thr Leu Glu
15          20          25          30
cgc tat gta gag acg cag gcc aag gaa aat gcc tat gat ctg gaa gcc 326
Arg Tyr Val Glu Thr Gln Ala Lys Glu Asn Ala Tyr Asp Leu Glu Ala
      35          40          45
aac ctg gct gtc ctg aag ctg tac cag ttc aac cca gcc ttc ttt cag 374
Asn Leu Ala Val Leu Lys Leu Tyr Gln Phe Asn Pro Ala Phe Phe Gln
      50          55          60
acc acg gtc acc gcc cag atc ctg ctg aag gcc ctc acc aac ttg ccg 422
Thr Thr Val Thr Ala Gln Ile Leu Leu Lys Ala Leu Thr Asn Leu Pro
      65          70          75
cac aca gac ttc acc ctg tgc aag tgc atg atc gac cag gca cat caa 470
His Thr Asp Phe Thr Leu Cys Lys Cys Met Ile Asp Gln Ala His Gln
      80          85          90
gaa gaa cgg cca atc cga cag att ttg tac tcg ggg ac 508
Glu Glu Arg Pro Ile Arg Gln Ile Leu Tyr Ser Gly
95          100          105

<210> 1670
<211> 462
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 120..461

<400> 1670
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agcgccctggg cctggaaccg ggccgtagcc cccccagttt cgcccaccac ctccctacc 119
atg gac ccc cgc aaa gtg aac gag ctt cgg gcc ttt gtg aaa atg tgt 167
Met Asp Pro Arg Lys Val Asn Glu Leu Arg Ala Phe Val Lys Met Cys
1          5          10          15
aag cag gat ccg agc gtt ctg cac acc gag gaa atg cgc ttc ctg agg 215
Lys Gln Asp Pro Ser Val Leu His Thr Glu Glu Met Arg Phe Leu Arg
      20          25          30
gag tgg gtg gag agc atg ggt ggt aaa gta cca cct gct act cag aaa 263
Glu Trp Val Glu Ser Met Gly Gly Lys Val Pro Pro Ala Thr Gln Lys
      35          40          45
gct aaa tca gaa gaa aat acc aag gaa gaa aaa cct gat agt aag aag 311
Ala Lys Ser Glu Glu Asn Thr Lys Glu Glu Lys Pro Asp Ser Lys Lys
      50          55          60
gtg gag gaa gac tta aag gca gac gaa cca tca agt gag gaa agt gat 359
Val Glu Glu Asp Leu Lys Ala Asp Glu Pro Ser Ser Glu Glu Ser Asp
      65          70          75          80
cta gaa att gat aaa gaa ggt gtg att gaa cca gac act gat gct cct 407
Leu Glu Ile Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro

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004220"666ET560

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caa gaa atg gga gat gaa aat gcg gag ata acg gag gag atg atg gat				455
Gln Glu Met Gly Asp Glu Asn Ala Glu Ile Thr Glu Glu Met Met Asp				
	100	105	110	
cag gca a				462
Gln Ala				

<210> 1671
 <211> 332
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 149..331

<400> 1671	
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ggctctgagag ccttgagcag ctatgggggt taacgcgtcc tcrctccta cgtaatttcc	120
aatacagtgg cccagtggga ggcagaaa atg ctg ctg gga ggg gac aga tgc	172
Met Leu Leu Gly Gly Asp Arg Cys	
1 5	
cct ctg gag ctc tgc atc tct cag tac tcc cag agg act ctc ctt cct	220
Pro Leu Glu Leu Cys Ile Ser Gln Tyr Ser Gln Arg Thr Leu Leu Pro	
10 15 20	
tcc tct cca ttc ccc aac ccc tgc tcc aac cta ctc aga acc caa aat	268
Ser Ser Pro Phe Pro Asn Pro Ser Ser Asn Leu Leu Arg Thr Gln Asn	
25 30 35 40	
caa agg cct ggg aat gta gga ttg ctt tct ctc cct aac tcc amt ggg	316
Gln Arg Pro Gly Asn Val Gly Leu Leu Ser Leu Pro Asn Ser Xaa Gly	
45 50 55	
ccc cac cct ccc ctg c	332
Pro His Pro Pro Leu	
60	

<210> 1672
 <211> 289
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 130..288

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tggtagtgcg tggccccgagt tagaggccag ctgagaagtc ttcgtgcttc agatttgttt	120
acctacaaa atg ctt cgg tat cca tat ttt tgt aga atg tat aaa gaa tgc	171
Met Leu Arg Tyr Pro Tyr Phe Cys Arg Met Tyr Lys Glu Cys	
1 5 10	
ctt tca tgt tgg ttg gaa tct ggc ata cct aat tta ggt gtc tgg cca	219
Leu Ser Cys Trp Leu Glu Ser Gly Ile Pro Asn Leu Gly Val Trp Pro	

15	20	25	30	
aam aga ata cat act aca gca gaa aaa tat aga gaa tat gaa gcc cgg				267
Xaa Arg Ile His Thr Thr Ala Glu Lys Tyr Arg Glu Tyr Glu Ala Arg				
	35	40	45	
gag caa aca gat caa act caa a				289
Glu Gln Thr Asp Gln Thr Gln				
50				

<210> 1673
 <211> 382
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 216..380

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ggactcattg caattcagaa atgagaagct gatccggaac tccactacag ctcaaagaaa	180
ttctcgaatg ttctcaccta ttaacagtta ttaaa atg gaa gaa gct ggg gat	233
	Met Glu Glu Ala Gly Asp
	1 5
gaa att gtg agc aat gcc atc tcc tac gct cta tac aaa gcc ttc agc	281
Glu Ile Val Ser Asn Ala Ile Ser Tyr Ala Leu Tyr Lys Ala Phe Ser	
	10 15 20
acc agt gag caa gac aag gat aac tgg aat ggg cag ctg aag ctt ctg	329
Thr Ser Glu Gln Asp Lys Asp Asn Trp Asn Gly Gln Leu Lys Leu Leu	
	25 30 35
ctg gag tgg aac cag ctg gac tta gcc aat gat gag att ttc acc aat	377
Leu Glu Trp Asn Gln Leu Asp Leu Ala Asn Asp Glu Ile Phe Thr Asn	
	40 45 50
gac cg	382
Asp	
55	

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 <211> 404
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 12..404

<400> 1674	
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Met Gly Ser Ala Gly Leu Ser Arg Leu His Gly Leu Phe	
	1 5 10
gcg gtc tat aag ccc ccg ggg cta aaa tgg aag cac ctg cgg gat aca	98
Ala Val Tyr Lys Pro Pro Gly Leu Lys Trp Lys His Leu Arg Asp Thr	

15	20	25	
gtg gag cta caa ctt ctg aag ggt ctc aat gcc agg aag cct ccc gct			146
Val Glu Leu Gln Leu Leu Lys Gly Leu Asn Ala Arg Lys Pro Pro Ala			
30	35	40	45
cct aaa cag cgt gtt cgc ttc ttg ctg ggc ccc atg gaa ggc agc gaa			194
Pro Lys Gln Arg Val Arg Phe Leu Leu Gly Pro Met Glu Gly Ser Glu			
50	55	60	
gag aag gag ctg acc ctc aca gcc acc agc gta ccc tct ttc atc aac			242
Glu Lys Glu Leu Thr Leu Thr Ala Thr Ser Val Pro Ser Phe Ile Asn			
65	70	75	
cat cca ctg gta tgt gga cca gca ttc gcc cat ctc aag gtt ggc gtg			290
His Pro Leu Val Cys Gly Pro Ala Phe Ala His Leu Lys Val Gly Val			
80	85	90	
gga cat cgg ttg gat gcc cag gct tct gga gta ctt gtg ctc ggc gtg			338
Gly His Arg Leu Asp Ala Gln Ala Ser Gly Val Leu Val Leu Gly Val			
95	100	105	
gga cat gga tgc agg ctc ctc acc gat atg tac aat gct cat ctt acc			386
Gly His Gly Cys Arg Leu Leu Thr Asp Met Tyr Asn Ala His Leu Thr			
110	115	120	125
aag gat tac aca gtg cat			404
Lys Asp Tyr Thr Val His			
130			
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<212> DNA			
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<222> 116..343			
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tttgcgtgaa agaatggtgt ttttggctga gtgaggaatt tgaagtatct ggaaa atg			118
			Met
			1
gaa gct cca ctg gtt caa cag cct ctc ctc cag ttt cga ccc cag tca			166
Glu Ala Pro Leu Val Gln Gln Pro Leu Leu Gln Phe Arg Pro Gln Ser			
5			10
cag gac aca aga gaa tgg tca tcc aac caa ccc cct cta aca gca acc			214
Gln Asp Thr Arg Glu Trp Ser Ser Asn Gln Pro Pro Leu Thr Ala Thr			
20			25
aag aag tct aca ttg aaa cca cag cct gca ccc cag gct gga ccc atc			262
Lys Lys Ser Thr Leu Lys Pro Gln Pro Ala Pro Gln Ala Gly Pro Ile			
35			40
cct gtg gct cca atc gga aca ctc aaa ccc cag cct cag cca gtc cca			310
Pro Val Ala Pro Ile Gly Thr Leu Lys Pro Gln Pro Gln Pro Val Pro			
50			55
gcc tcc tac acc acg gcc tcc act tct tca agg cc			345
Ala Ser Tyr Thr Thr Ala Ser Thr Ser Ser Arg			
70			75

<210> 1676
 <211> 439
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 96..437

<400> 1676
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 Met Lys Leu Lys Asp Thr
 1 5
 aaa tca agg cca aag cag tca agc tgt ggc aaa ttt cag aca aag gga 161
 Lys Ser Arg Pro Lys Gln Ser Ser Cys Gly Lys Phe Gln Thr Lys Gly
 10 15 20
 atc aaa gtt gtg gga aaa tgg aag gaa gtg aag att gac cca aat atg 209
 Ile Lys Val Val Gly Lys Trp Lys Glu Val Lys Ile Asp Pro Asn Met
 25 30 35
 ttt gca gat gga cag atg gat gac ttg gtg tgc ttt gag gaa ttg aca 257
 Phe Ala Asp Gly Gln Met Asp Asp Leu Val Cys Phe Glu Glu Leu Thr
 40 45 50
 gat tac cag ttg gtc tcc cct gcc aag aat ccc tcc agt ctc ttc tca 305
 Asp Tyr Gln Leu Val Ser Pro Ala Lys Asn Pro Ser Ser Leu Phe Ser
 55 60 65 70
 aag gaa gca ccc aag aga aag gca caa gct gtt tca gaa gaa gag gag 353
 Lys Glu Ala Pro Lys Arg Lys Ala Gln Ala Val Ser Glu Glu Glu Glu
 75 80 85
 gag gag gag gga aag tct agc tca cca aag aaa aag atc aag ttg aag 401
 Glu Glu Glu Gly Lys Ser Ser Ser Pro Lys Lys Lys Ile Lys Leu Lys
 90 95 100
 aaa agt aaa aac gta gca act gaa gga acc agt acc ca 439
 Lys Ser Lys Asn Val Ala Thr Glu Gly Thr Ser Thr
 105 110

<210> 1677
 <211> 367
 <212> DNA
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<220>
 <221> CDS
 <222> 35..367

<400> 1677
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 Met Ala Cys Pro Ala Leu Gly
 1 5
 ctg gaa gct ctt cag ccc ctg cag ccc gag ccg ccc ccc gag ccc gcc 103
 Leu Glu Ala Leu Gln Pro Leu Gln Pro Glu Pro Pro Glu Pro Ala
 10 15 20

ttc tcc gag gcg cag aag tgg att gag caa gta act ggc aga agt ttt	151
Phe Ser Glu Ala Gln Lys Trp Ile Glu Gln Val Thr Gly Arg Ser Phe	
25 30 35	
ggt gat aaa gat ttt cgg aca ggt tta gaa aat gga atc ctc ctc tgc	199
Gly Asp Lys Asp Phe Arg Thr Gly Leu Glu Asn Gly Ile Leu Leu Cys	
40 45 50 55	
gag ttg ctg aat gct ata aag cca gga ctt gtt aaa aag atc aat aga	247
Glu Leu Leu Asn Ala Ile Lys Pro Gly Leu Val Lys Lys Ile Asn Arg	
60 65 70	
ttg cct acc ccc att gca gga ctg gac aat att atc tta ttc ttg aga	295
Leu Pro Thr Pro Ile Ala Gly Leu Asp Asn Ile Ile Leu Phe Leu Arg	
75 80 85	
ggt tgt aaa gag ctc ggc ctt aaa gaa tct caa ctt ttt gac ccg agt	343
Gly Cys Lys Glu Leu Gly Leu Lys Glu Ser Gln Leu Phe Asp Pro Ser	
90 95 100	
gac ctc cag gat aca tcc aac aga	367
Asp Leu Gln Asp Thr Ser Asn Arg	
105 110	

<210> 1678
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 79..396

<400> 1678	
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gccagagggga caggagccc atg gct cag aaa atg gac tgt ggt gcg ggc ctc	111
Met Ala Gln Lys Met Asp Cys Gly Ala Gly Leu	
1 5 10	
ctc ggc ttc cag gct gag gcc tcc gta gaa gac agc gcc ttg ctt atg	159
Leu Gly Phe Gln Ala Glu Ala Ser Val Glu Asp Ser Ala Leu Leu Met	
15 20 25	
cag acc ttg atg gag gcc atc cag atc tca gag gct cca cct act aac	207
Gln Thr Leu Met Glu Ala Ile Gln Ile Ser Glu Ala Pro Pro Thr Asn	
30 35 40	
cag gcc acc gca gct gct agt ccc cag agt tca cag ccc cca act gcc	255
Gln Ala Thr Ala Ala Ser Pro Gln Ser Ser Gln Pro Pro Thr Ala	
45 50 55	
aat gag atg gct gac att cag gtt tca gca gct gcc gct agg cta agt	303
Asn Glu Met Ala Asp Ile Gln Val Ser Ala Ala Ala Arg Leu Ser	
60 65 70 75	
cag cct tta aag tcc aga atg cca cca caa aag gcc caw atg gtg tct	351
Gln Pro Leu Lys Ser Arg Met Pro Pro Gln Lys Ala Xaa Met Val Ser	
80 85 90	
atg att tct ctc agg ctc ata atg cca agg atg tgc cca aca cac	396
Met Ile Ser Leu Arg Leu Ile Met Pro Arg Met Cys Pro Thr His	
95 100 105	

<210> 1679

<211> 380
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 223..378

<400> 1679
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 ctttacagggt gttatgaagc ggagattgag gagatagatg aagaaaatgg caccgctgca 120
 atcacctttg ctgggttatgg caatgctgaa gtgactccac tgttgaacct caagcctgta 180
 gaagaaggaa ggaaggcaaa ggaggacagt ggcaacaaac cc atg tca aaa aaa 234
 Met Ser Lys Lys
 1
 gaa atg att gcc cag cag cgt gaa tat aaa aag aag aaa gct ttg aaa 282
 Glu Met Ile Ala Gln Gln Arg Glu Tyr Lys Lys Lys Lys Ala Leu Lys
 5 10 15 20
 aaa gct cag aga ata aaa gaa ctt gag cag gaa aga gag gac cag aaa 330
 Lys Ala Gln Arg Ile Lys Glu Leu Glu Gln Glu Arg Glu Asp Gln Lys
 25 30 35
 gtg aaa tgg caa cat tca aca aca gag cct att cta aaa aca aaa aag 378
 Val Lys Trp Gln His Ser Thr Thr Glu Pro Ile Leu Lys Thr Lys Lys
 40 45 50
 gc 380

<210> 1680
 <211> 287
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 20..286

<400> 1680
 ctttkttttt ctttccaaa atg gca gcc tcc agt cgc gca caa gtg tta tct 52
 Met Ala Ala Ser Ser Arg Ala Gln Val Leu Ser
 1 5 10
 ctg tac cgg gcg atg ctg aga gag agc aag cgt ttc agc gcc tac aat 100
 Leu Tyr Arg Ala Met Leu Arg Glu Ser Lys Arg Phe Ser Ala Tyr Asn
 15 20 25
 tac aga aca tat gct gtc agg agg ata aga gat gcc ttc aga gaa aat 148
 Tyr Arg Thr Tyr Ala Val Arg Arg Ile Arg Asp Ala Phe Arg Glu Asn
 30 35 40
 aaa aat gta aag gat cct gta gaa att caa acc cta gtg aat aaa gcc 196
 Lys Asn Val Lys Asp Pro Val Glu Ile Gln Thr Leu Val Asn Lys Ala
 45 50 55
 aag aga gac ctt gga gta att cgt cga cag gtc cac att ggc caa ctg 244
 Lys Arg Asp Leu Gly Val Ile Arg Arg Gln Val His Ile Gly Gln Leu
 60 65 70 75
 tat tca act gac aag ctg atc att gag aat cga gac atg ccc a 287

Tyr Ser Thr Asp Lys Leu Ile Ile Glu Asn Arg Asp Met Pro
 80 85

<210> 1681
 <211> 307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 20..307

<400> 1681
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 Met Ala Ala Ser Ser Arg Ala Gln Val Leu Ser
 1 5 10
 ctg tac cgg gcg atg ctg aga gag agc aag cgt ttc agc gcc tac aat 100
 Leu Tyr Arg Ala Met Leu Arg Glu Ser Lys Arg Phe Ser Ala Tyr Asn
 15 20 25
 tac aga aca tat gct gtc agg agg ata aga gat gcc ttc aga gaa aat 148
 Tyr Arg Thr Tyr Ala Val Arg Arg Ile Arg Asp Ala Phe Arg Glu Asn
 30 35 40
 aaa aat gta aag gat cct gta gaa att caa acc cta gtg aat aaa gcc 196
 Lys Asn Val Lys Asp Pro Val Glu Ile Gln Thr Leu Val Asn Lys Ala
 45 50 55
 aag aga gac ctt gga gta att cgt cga cag gtc cac att ggc caa ctg 244
 Lys Arg Asp Leu Gly Val Ile Arg Arg Gln Val His Ile Gly Gln Leu
 60 65 70 75
 tat tca act gac aag cgt aaa acc aag act acc aac ttt cca agg cta 292
 Tyr Ser Thr Asp Lys Arg Lys Thr Lys Thr Thr Asn Phe Pro Arg Leu
 80 85 90
 aca aca aca aca gta 307
 Thr Thr Thr Thr Val
 95

<210> 1682
 <211> 411
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 36..410

<400> 1682
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 Met Leu Val Asn Val Leu
 1 5
 aac atc tgc tca gat gat gaa cta ggg tca gaa gaa gat gga ttt gat 101
 Asn Ile Cys Ser Asp Asp Glu Leu Gly Ser Glu Glu Asp Gly Phe Asp
 10 15 20
 ggt gca aca gct gca gcc cgg aaa gag gtg ata agg aac aag atc cga 149

Gly Ala Thr Ala Ala Ala Arg Lys Glu Val Ile Arg Asn Lys Ile Arg
 25 30 35
 gca ata ggc aaa atg gcc aga gtg ttc tca gtg ctc aga gaa gag agt 197
 Ala Ile Gly Lys Met Ala Arg Val Phe Ser Val Leu Arg Glu Glu Ser
 40 45 50
 gag agt gtg ctg acg ctg aaa ggc ttg acc cca act ggc atg ctc ccc 245
 Glu Ser Val Leu Thr Leu Lys Gly Leu Thr Pro Thr Gly Met Leu Pro
 55 60 65 70
 agc gga gta ctt tct gga ggg aag caa acc ctg caa agc gct atc aaa 293
 Ser Gly Val Leu Ser Gly Gly Lys Gln Thr Leu Gln Ser Ala Ile Lys
 75 80 85
 gga ttt tca cca caa cat aag atc act agc ttc gag gaa gcc aag ggc 341
 Gly Phe Ser Pro Gln His Lys Ile Thr Ser Phe Glu Glu Ala Lys Gly
 90 95 100
 tta gac cga att aat gag agg atg ccg cct cgc aga gat gcc atg ccc 389
 Leu Asp Arg Ile Asn Glu Arg Met Pro Pro Arg Arg Asp Ala Met Pro
 105 110 115
 tct gac gcc aac ctt aac tcc a 411
 Ser Asp Ala Asn Leu Asn Ser
 120 125

 <210> 1683
 <211> 497
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> CDS
 <222> 74..496

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 ctcgctgggg gaa atg aca gct tgg acc atg ggc gcc cgc ggt ctg gac 109
 Met Thr Ala Trp Thr Met Gly Ala Arg Gly Leu Asp
 1 5 10
 aag cga gga agt ttc ttt aag ctc att gac aca att gcc tcg gag atc 157
 Lys Arg Gly Ser Phe Phe Lys Leu Ile Asp Thr Ile Ala Ser Glu Ile
 15 20 25
 gga gaa ctg aaa cag gag atg gtg cgg aca gat gtc aac ctg gaa aat 205
 Gly Glu Leu Lys Gln Glu Met Val Arg Thr Asp Val Asn Leu Glu Asn
 30 35 40
 ggc ctg gaa ccc gct gaa acc cac agc atg gta aga cac aag gat ggt 253
 Gly Leu Glu Pro Ala Glu Thr His Ser Met Val Arg His Lys Asp Gly
 45 50 55 60
 ggc tat tcc gag gaa gag gac gtg aag acc trt gcc cgg gac tca ggc 301
 Gly Tyr Ser Glu Glu Glu Asp Val Lys Thr Xaa Ala Arg Asp Ser Gly
 65 70 75
 tat gac agc ctc tcc aac agg ctc agc atc ttg gac cgg ctc ctc cac 349
 Tyr Asp Ser Leu Ser Asn Arg Leu Ser Ile Leu Asp Arg Leu Leu His
 80 85 90
 acc cac ccc ata tgg ctg cag ctg agt ctg agt gag gag gag gca gca 397
 Thr His Pro Ile Trp Leu Gln Leu Ser Leu Ser Glu Glu Glu Ala Ala
 95 100 105

gag gtc ctg cag gcc cag cct ccg ggg atc ttc ctg gtt cat aaa tct	445
Glu Val Leu Gln Ala Gln Pro Pro Gly Ile Phe Leu Val His Lys Ser	
110 115 120	
act aag atg cag aag aaa gtc ctc tcc ctc cgc ctg ccc tgt gaa ttt	493
Thr Lys Met Gln Lys Lys Val Leu Ser Leu Arg Leu Pro Cys Glu Phe	
125 130 135 140	
ggg g	497
Gly	

<210> 1684
 <211> 444
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 108..443

<400> 1684	
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cacctcaaag ctggccgccac ccgctgccac ctgctcagag tgaaata atg aag gtg	116
Met Lys Val	
1	
gtc aac ctg aag caa gcc att ttg caa gcc tgg aag gag cgc tgg agt	164
Val Asn Leu Lys Gln Ala Ile Leu Gln Ala Trp Lys Glu Arg Trp Ser	
5 10 15	
gac tac caa tgg gca atc aac atg aag aaa ttc ttt cct aaa gga gcc	212
Asp Tyr Gln Trp Ala Ile Asn Met Lys Lys Phe Phe Pro Lys Gly Ala	
20 25 30 35	
anc tgg gat att ctc aac ctg gca gat gcg tta cta gag cag gnc atg	260
Xaa Trp Asp Ile Leu Asn Leu Ala Asp Ala Leu Leu Glu Gln Xaa Met	
40 45 50	
att gga cca tcc ccc aat cct ctc atc ttg tcc tac ctg aag tat gcc	308
Ile Gly Pro Ser Pro Asn Pro Leu Ile Leu Ser Tyr Leu Lys Tyr Ala	
55 60 65	
att agt tcc cag atg gtg tcc tac tct tct gtc ctc aca gcc atc agt	356
Ile Ser Ser Gln Met Val Ser Tyr Ser Ser Val Leu Thr Ala Ile Ser	
70 75 80	
aag ttt gat gac ttt tct cgg gac ctg tgt gtc cag gca ttg ctg gac	404
Lys Phe Asp Asp Phe Ser Arg Asp Leu Cys Val Gln Ala Leu Leu Asp	
85 90 95	
atc atg gac atg ttt tgt gac cgt ctg agc tgt cac ggc a	444
Ile Met Asp Met Phe Cys Asp Arg Leu Ser Cys His Gly	
100 105 110	

<210> 1685
 <211> 407
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 31..405

004220.66E1560

<400> 1685

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aatgcgacct catctttgtc agtgcacaaa atg gcg ccc tac agc cta ctg gtg      54
                               Met Ala Pro Tyr Ser Leu Leu Val
                               1           5

act cgg ctg cag aaa gct ctg ggt gtg cgg cag tac cat gtg gcc tca      102
Thr Arg Leu Gln Lys Ala Leu Gly Val Arg Gln Tyr His Val Ala Ser
10           15           20

gtc ctg tgc caa cgg gcc aag gtg gcg atg agc cac ttt gag ccc aac      150
Val Leu Cys Gln Arg Ala Lys Val Ala Met Ser His Phe Glu Pro Asn
25           30           35           40

gag tac atc cat tat gac ctg cta gag aag aac att aac att gtt cgc      198
Glu Tyr Ile His Tyr Asp Leu Leu Glu Lys Asn Ile Asn Ile Val Arg
45           50           55

aaa cga ctg aac cgg ccg ctg aca ctc tcg gag aag att gtg tat gga      246
Lys Arg Leu Asn Arg Pro Leu Thr Leu Ser Glu Lys Ile Val Tyr Gly
60           65           70

cac ctg gat gac ccc gcc agc cag gaa att gag cga ggc aag tcg tac      294
His Leu Asp Asp Pro Ala Ser Gln Glu Ile Glu Arg Gly Lys Ser Tyr
75           80           85

ctg cgg ctg cgg ccg gac cgt gtg gcc atg cag gat gcg acg gcc cag      342
Leu Arg Leu Arg Pro Asp Arg Val Ala Met Gln Asp Ala Thr Ala Gln
90           95           100

atg gcc atg ctc cag ttc atc agc agc ggg ctg tcc aag gtg gct gtg      390
Met Ala Met Leu Gln Phe Ile Ser Ser Gly Leu Ser Lys Val Ala Val
105           110           115           120

cat cca cca tcc act gt      407
His Pro Pro Ser Thr
125

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<210> 1686

<211> 369

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 10..369

<400> 1686

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                               Met Ala Glu Cys Gly Ala Ser Gly Thr Xaa Ser Ser Gly Asp
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agt ctg gac aag agc atc acg ctg ccc ccc gac gag atc ttc cgc aac      99
Ser Leu Asp Lys Ser Ile Thr Leu Pro Pro Asp Glu Ile Phe Arg Asn
15           20           25           30

ctg gag aac gcc aag cgc ttc gcc atc gac ata ggc ggg tcg tta acc      147
Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu Thr
35           40           45

aag ctg gcc tac tat tca acg gta cag cac aaa gtc gcc aag gtg cgg      195
Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val Arg
50           55           60

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tct ttc gac cac tcc gga aag gac aca gaa cgt gaa cat gag ccg ccc	243
Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro Pro	
65 70 75	
tat gag att tca gtt caa gaa gag atc act gct cga ctg cac ttc att	291
Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe Ile	
80 85 90	
aag ttt gag aat acc tac atc gaa gcc tgc ctg gac ttc ata gaa gac	339
Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Glu Asp	
95 100 105 110	
cat ctc gtc aac aca gag acc aag gtc atc	369
His Leu Val Asn Thr Glu Thr Lys Val Ile	
115 120	

<210> 1687
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 143..358

<400> 1687	
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gcggcgccctg mmggagcggg atctaaccga ggagcagaca gagaagctgc tgcagtttca	120
ggatctcact ggcacgaat ct atg gat cag tgt cgc cat acc tgg gan cag	172
Met Asp Gln Cys Arg His Thr Trp Xaa Gln	
1 5 10	
crt aac tgg aac ana gag gct gct rta cag gac aga ttg aat gag gsa	220
Xaa Asn Trp Asn Xaa Glu Ala Ala Xaa Gln Asp Arg Leu Asn Glu Xaa	
15 20 25	
gag ggc gta cct agt gtt ttc aac cca cct cca tca cga ccc ctg cag	268
Glu Gly Val Pro Ser Val Phe Asn Pro Pro Pro Ser Arg Pro Leu Gln	
30 35 40	
gtt aat aca gct gac cac agg atc tac agc tat gtt gtc tca aga cct	316
Val Asn Thr Ala Asp His Arg Ile Tyr Ser Tyr Val Val Ser Arg Pro	
45 50 55	
caa cca agg ggg ctg ctt rga tgg ggt tat tac ttg ata atg ct	360
Gln Pro Arg Gly Leu Leu Xaa Trp Gly Tyr Tyr Leu Ile Met	
60 65 70	

<210> 1688
 <211> 428
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 134..427

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004220-666E1560

004220-022400 00513999-022400

tcctcccgagg gctctggaga cgcgccastc tttgacrsct ctctgcgct aaggaagagt	120
tggtttacag aaa atg cac caa ttc cag ctg gac atc act gtg aaa atg	169
Met His Gln Phe Gln Leu Asp Ile Thr Val Lys Met	
1 5 10	
ggm cgg gmt aaa gtc cga gaa atg wtt atg aag aat gcc cat gtc aca	217
Gly Arg Xaa Lys Val Arg Glu Met Xaa Met Lys Asn Ala His Val Thr	
15 20 25	
gac ccc agg gtg gtt gat ctt ctg gtc att aag gga aag atc gaa ctg	265
Asp Pro Arg Val Val Asp Leu Leu Val Ile Lys Gly Lys Ile Glu Leu	
30 35 40	
gam gaa aca att aaa agt atg gaa gca gcg gac aca tgt nnn gcg gtt	313
Xaa Glu Thr Ile Lys Ser Met Glu Ala Ala Asp Thr Cys Xaa Ala Val	
45 50 55 60	
ctt cca wra aaa cag aag cgc caa ggc cma aag gat ttc cta tcc aag	361
Leu Pro Xaa Lys Gln Lys Arg Gln Gly Xaa Lys Asp Phe Leu Ser Lys	
65 70 75	
ttc taw gtt ggc cac gaa tcc atg aag tca ttc agt gga aag atg cac	409
Phe Xaa Val Gly His Glu Ser Met Lys Ser Phe Ser Gly Lys Met His	
80 85 90	
gtt gat act att tta gag c	428
Val Asp Thr Ile Leu Glu	
95	
<210> 1689	
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<212> DNA	
<213> Homo sapiens	
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<221> CDS	
<222> 19..303	
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Met Ala Ala Ala Val Leu Gly Gln Leu Gly Ala	
1 5 10	
tta tgg ata cat aac ctg agg agc cgg ggg aag ctg gcc ttg ggt gtt	99
Leu Trp Ile His Asn Leu Arg Ser Arg Gly Lys Leu Ala Leu Gly Val	
15 20 25	
tta cct caa tca tat atc cac aca agt gct tct ctt gac att tct cga	147
Leu Pro Gln Ser Tyr Ile His Thr Ser Ala Ser Leu Asp Ile Ser Arg	
30 35 40	
aaa tgg gag aag aag aat aaa att gtt tat cct cca caa ctg cct gga	195
Lys Trp Glu Lys Lys Asn Lys Ile Val Tyr Pro Pro Gln Leu Pro Gly	
45 50 55	
gaa cct cgg aga cca gca gaa atc tac can tgt cga aga caa ata aaa	243
Glu Pro Arg Arg Pro Ala Glu Ile Tyr Xaa Cys Arg Arg Gln Ile Lys	
60 65 70 75	
tat agc aaa gac aag atg tgg tat ttg gca aaa ttg ata cga gga atg	291
Tyr Ser Lys Asp Lys Met Trp Tyr Leu Ala Lys Leu Ile Arg Gly Met	
80 85 90	
tct att gac cag	303
Ser Ile Asp Gln	

<210> 1690
 <211> 580
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 103..579

<400> 1690
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 Met Pro Trp Arg
 1
 gga agg cgc ttc cgg ctc tgc aga cgc aag atg gct gtc ctc tct aag 162
 Gly Arg Arg Phe Arg Leu Cys Arg Arg Lys Met Ala Val Leu Ser Lys
 5 10 15 20
 gaa tat ggt ttt gtg ctt cta act ggt gct gcc agc ttt ata atg gtg 210
 Glu Tyr Gly Phe Val Leu Leu Thr Gly Ala Ala Ser Phe Ile Met Val
 25 30 35
 gcc cac cta gcc atc aat gtt tcc aag gcc cgc aag aag tac aaa gtg 258
 Ala His Leu Ala Ile Asn Val Ser Lys Ala Arg Lys Lys Tyr Lys Val
 40 45 50
 gag tat cct atc atg tac agc acg gac cct gaa aat ggg cac atc ttc 306
 Glu Tyr Pro Ile Met Tyr Ser Thr Asp Pro Glu Asn Gly His Ile Phe
 55 60 65
 aac tgc att cag cga gcc cac cag aac acg ttg gaa gtg tat cct ccc 354
 Asn Cys Ile Gln Arg Ala His Gln Asn Thr Leu Glu Val Tyr Pro Pro
 70 75 80
 ttc tta ttt ttt cta gct gtt gga ggt gtt tac cac ccg cgt ata gct 402
 Phe Leu Phe Phe Leu Ala Val Gly Gly Val Tyr His Pro Arg Ile Ala
 85 90 95 100
 tct ggc ctg ggc ttg gcc tgg att gtt gga cga gtt ctt tat gct tat 450
 Ser Gly Leu Gly Leu Ala Trp Ile Val Gly Arg Val Leu Tyr Ala Tyr
 105 110 115
 ggc tat tac rcg gga gaa ccc agc aag cgt agt cga gga gcc ctg ggg 498
 Gly Tyr Tyr Xaa Gly Glu Pro Ser Lys Arg Ser Arg Gly Ala Leu Gly
 120 125 130
 tcc atc gcc ctc ctg ggc ttg gtg ggc aca act gtg tgc tct gct ttc 546
 Ser Ile Ala Leu Leu Gly Leu Val Gly Thr Thr Val Cys Ser Ala Phe
 135 140 145
 cag cat ctt ggt tgg gtt aaa agt ggc ttg ggc a 580
 Gln His Leu Gly Trp Val Lys Ser Gly Leu Gly
 150 155

<210> 1691
 <211> 395
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 52..393

<400> 1691
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Met His
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cta gta acc aac agt ggc aaa atg gtg gtt tta gac aag ctg ctc cct 105
Leu Val Thr Asn Ser Gly Lys Met Val Val Leu Asp Lys Leu Leu Pro
5 10 15
aag tta aaa gaa caa ggt tca cga gta cta atc ttc agt caa atg aca 153
Lys Leu Lys Glu Gln Gly Ser Arg Val Leu Ile Phe Ser Gln Met Thr
20 25 30
agg gta ttg gac att ttg gaa gat tat tgc atg tgg aga aat tat gag 201
Arg Val Leu Asp Ile Leu Glu Asp Tyr Cys Met Trp Arg Asn Tyr Glu
35 40 45 50
tac tgc agg ttg gat ggt cag aca ccc cat gat gag aga caa gac tcc 249
Tyr Cys Arg Leu Asp Gly Gln Thr Pro His Asp Glu Arg Gln Asp Ser
55 60 65
atc art gca tac aat gaa cca aac agc aca aag ttt gtt ttc atg tta 297
Ile Xaa Ala Tyr Asn Glu Pro Asn Ser Thr Lys Phe Val Phe Met Leu
70 75 80
agc acg cgt gct ggt ggt ctt ggc atc aat ctt gcg act gct gat gta 345
Ser Thr Arg Ala Gly Gly Leu Gly Ile Asn Leu Ala Thr Ala Asp Val
85 90 95
gta att ttg tat gat tct rat tgg aat ccc caa gta gat ctt cag gct 393
Val Ile Leu Tyr Asp Ser Xaa Trp Asn Pro Gln Val Asp Leu Gln Ala
100 105 110
at 395

<210> 1692
<211> 309
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 135..308

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atgattccta atat atg att gtt caa atg gag act cac atg ctg cat aaa 170
Met Ile Val Gln Met Glu Thr His Met Leu His Lys
1 5 10
gat att cct gtg gaa cat gga tct atg gca gca gac aga cag ccc ccc 218
Asp Ile Pro Val Glu His Gly Ser Met Ala Ala Asp Arg Gln Pro Pro
15 20 25
ctc agt gcc cca gcc tca gct ctg cgc aca gcg gtc ccc ngc atg tcc 266
Leu Ser Ala Pro Ala Ser Ala Leu Arg Thr Ala Val Pro Xaa Met Ser
30 35 40
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Ala Leu Leu Phe Cys Thr Ala Arg Ser Pro Glu Thr Glu Pro
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<211> 383
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cagcagcggc tgaccctctg cctgcgggga agggagtcgc caggcggccg tc atg gcg 118
Met Ala
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gtg tcg gag agc cag ctc aag aaa atg gtg tcc aag tac aaa tac aga 166
Val Ser Glu Ser Gln Leu Lys Lys Met Val Ser Lys Tyr Lys Tyr Arg
5 10 15
gac cta act gta cgt gaa act gtc aat gtt att act cta tac aaa gat 214
Asp Leu Thr Val Arg Glu Thr Val Asn Val Ile Thr Leu Tyr Lys Asp
20 25 30
ctc aaa cct gtt ttg gat tca tat gtt ttt aac gat ggc agt tcc agg 262
Leu Lys Pro Val Leu Asp Ser Tyr Val Phe Asn Asp Gly Ser Ser Arg
35 40 45 50
gaa cta atg aac ctc act gga aca atc cct gtg cct tat aga ggt aat 310
Glu Leu Met Asn Leu Thr Gly Thr Ile Pro Val Pro Tyr Arg Gly Asn
55 60 65
aca tac aat att cca ata tgc cta tgg cta ctg gac aca tac cca tat 358
Thr Tyr Asn Ile Pro Ile Cys Leu Trp Leu Leu Asp Thr Tyr Pro Tyr
70 75 80
aat ccc cct atc tgt ttt gtt aag c 383
Asn Pro Pro Ile Cys Phe Val Lys
85 90

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<222> 69..299

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ctctggcc atg gac acc ccg gaa aat gtc ctt cag atg ctt gaa gcc cac 110
Met Asp Thr Pro Glu Asn Val Leu Gln Met Leu Glu Ala His
1 5 10
atg cag agc tac aag ggc aat gac cct ctt ggt gaa tgg gaa aga tac 158
Met Gln Ser Tyr Lys Gly Asn Asp Pro Leu Gly Glu Trp Glu Arg Tyr

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1134

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 ccgcgggacc atg gcg gcg gcg gcg gac gag cgg agt cca gag gac gga 109
 Met Ala Ala Ala Ala Asp Glu Arg Ser Pro Glu Asp Gly
 1 5 10
 gaa gac gag gaa gag gag gag cag ttg gtt ctg gtg gaa tta tca gga 157
 Glu Asp Glu Glu Glu Glu Glu Gln Leu Val Leu Val Glu Leu Ser Gly
 15 20 25
 att att gat tca gac ttc ctc tca aaa tgt gaa aat aaa tgc aag gtt 205
 Ile Ile Asp Ser Asp Phe Leu Ser Lys Cys Glu Asn Lys Cys Lys Val
 30 35 40 45
 ttg ggc att gac act gag agg ccc att ctg caa gtg gac agc tgt gtc 253
 Leu Gly Ile Asp Thr Glu Arg Pro Ile Leu Gln Val Asp Ser Cys Val
 50 55 60
 ttt gct ggg gag tat gaa gac act cta ggg acc tgt gtt ata ttt gaa 301
 Phe Ala Gly Glu Tyr Glu Asp Thr Leu Gly Thr Cys Val Ile Phe Glu
 65 70 75
 gaa aat gtt gaa cat gct gat aca gaa ggc aat aat aaa aca gtg cta 349
 Glu Asn Val Glu His Ala Asp Thr Glu Gly Asn Asn Lys Thr Val Leu
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 aaa ta 354
 Lys

 <210> 1697
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 <400> 1697
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 Met Ala Asp Leu Thr Ser Val Leu
 1 5
 act tct gtt atg ttt tct ccc tct agt aaa atg ttt atc ggt gga ctg 102
 Thr Ser Val Met Phe Ser Pro Ser Ser Lys Met Phe Ile Gly Gly Leu
 10 15 20
 agc tgg cag acc tca cca gat agc ctt aga gac tat ttt agc aaa ttt 150
 Ser Trp Gln Thr Ser Pro Asp Ser Leu Arg Asp Tyr Phe Ser Lys Phe
 25 30 35 40
 gga gaa att aga gaa tgt atg gtc atg aga gat ccc act acg aaa cgc 198
 Gly Glu Ile Arg Glu Cys Met Val Met Arg Asp Pro Thr Thr Lys Arg
 45 50 55
 tcc aga ggc ttc ggt ttc gtc acg ttc gca gac cca gca agt gta gat 246
 Ser Arg Gly Phe Gly Phe Val Thr Phe Ala Asp Pro Ala Ser Val Asp
 60 65 70
 aaa gta tta ggt cag ccc cac cat gag tta gat tcc aag acg att gac 294
 Lys Val Leu Gly Gln Pro His His Glu Leu Asp Ser Lys Thr Ile Asp
 75 80 85
 ccc aaa gtt gca ttt cct nnt cga gcg caa ccc aag atg gtc aca aga 342
 Pro Lys Val Ala Phe Pro Xaa Arg Ala Gln Pro Lys Met Val Thr Arg

90	95	100	
aca aag aaa ata ttt gta ggc ggg tta tct gcg aac aca gta gtg gaa			390
Thr Lys Lys Ile Phe Val Gly Gly Leu Ser Ala Asn Thr Val Val Glu			
105	110	115	120
gat gta aag caa tat ttc gag c			412
Asp Val Lys Gln Tyr Phe Glu			
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<210> 1698
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 <212> DNA
 <213> Homo sapiens

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Met Ala Lys Thr Tyr Asp Tyr Leu	
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ttc aag ctg ctg ctg atc ggg gac tcg ggg gtg ggg aag acc tgt gtc	100
Phe Lys Leu Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Thr Cys Val	
10 15 20	
ctg ttc cgc ttc tcc gag gac gcc ttc aac tcc act ttt atc tcc acc	148
Leu Phe Arg Phe Ser Glu Asp Ala Phe Asn Ser Thr Phe Ile Ser Thr	
25 30 35 40	
ata gga att gac ttt aaa att agg acc ata gag ctc gat ggc aag aga	196
Ile Gly Ile Asp Phe Lys Ile Arg Thr Ile Glu Leu Asp Gly Lys Arg	
45 50 55	
att aaa ctg cag ata tgg gac aca gcc ggt cag gaa cgg ttt cgg acg	244
Ile Lys Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Thr	
60 65 70	
atc aca acg gcc tac tac agg ggt gca atg ggc atc atg ctg gtc tac	292
Ile Thr Thr Ala Tyr Tyr Arg Gly Ala Met Gly Ile Met Leu Val Tyr	
75 80 85	
gac atc acc aac gag aag tcc ttc gac aac atc cgg aac tgg att cgc	340
Asp Ile Thr Asn Glu Lys Ser Phe Asp Asn Ile Arg Asn Trp Ile Arg	
90 95 100	
aac att gag gag cac gcc tct gca gac gtc gaa aag atg ata cty ggg	388
Asn Ile Glu Glu His Ala Ser Ala Asp Val Glu Lys Met Ile Leu Gly	
105 110 115 120	
aac aag tgt gat gtg aat gac aag	412
Asn Lys Cys Asp Val Asn Asp Lys	
125	

<210> 1699
 <211> 346
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 132..344

<400> 1699

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aggtccccga cattccatat acaagatggc cgcagtcggc aaggagagac gtcgctgagg      60
ggcttgccctg aagcgagggg attctaacat tttcagagaa ccttttgaa agaacaagcc      120
tacttcaata a atg aag gag aat aaa gaa aat tca agc cct tca gta act      170
          Met Lys Glu Asn Lys Glu Asn Ser Ser Pro Ser Val Thr
            1           5           10
tca gca aac ctg gac cac aca aag cca tgt tgg tac tgg gat aag aaa      218
Ser Ala Asn Leu Asp His Thr Lys Pro Cys Trp Tyr Trp Asp Lys Lys
          15           20           25
gac ttg gct cat aca ccc tca caa ctt gaa gga ctt gat cca gcc acc      266
Asp Leu Ala His Thr Pro Ser Gln Leu Glu Gly Leu Asp Pro Ala Thr
          30           35           40           45
gag gcc cgg tac cgc cga gag ggc gct cgg ttc atc ttt gat gtg ggc      314
Glu Ala Arg Tyr Arg Arg Glu Gly Ala Arg Phe Ile Phe Asp Val Gly
            50           55           60
aca cgt ttg ggg cta cac tat gat acc ctg gc      346
Thr Arg Leu Gly Leu His Tyr Asp Thr Leu
            65           70
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<210> 1700

<211> 434

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 92..433

<400> 1700

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ctataagagt aaagaaaatt gtgttggtgga taacatcaaa gtgtgcagta atgacactgg      60
gagtggaaaa ttcaagtgtg tttgcatcac t atg aga gtg cct cgg aac cca      112
          Met Arg Val Pro Arg Asn Pro
            1           5
act atc gga gat aaa ttt gcc agt cgc cat ggg cag aag ggc att tta      160
Thr Ile Gly Asp Lys Phe Ala Ser Arg His Gly Gln Lys Gly Ile Leu
          10           15           20
agc aga ttg tgg ccg gct gag gac atg cct ttt act gag agt ggg atg      208
Ser Arg Leu Trp Pro Ala Glu Asp Met Pro Phe Thr Glu Ser Gly Met
          25           30           35
gtc cca gac att ctg ttc aat ccc cat ggt ttt cca tcc cgc atg acc      256
Val Pro Asp Ile Leu Phe Asn Pro His Gly Phe Pro Ser Arg Met Thr
          40           45           50           55
att ggg atg tta att gag agt atg gcc ggg aag tct gca gct ttg cat      304
Ile Gly Met Leu Ile Glu Ser Met Ala Gly Lys Ser Ala Ala Leu His
            60           65           70
ggg ctc tgc cat gat gct aca ccc ttc atc ttc tca gag gag aac tcg      352
Gly Leu Cys His Asp Ala Thr Pro Phe Ile Phe Ser Glu Glu Asn Ser
            75           80           85
gcc tta gaa tac ttt ggt gag atg tta aag gct gct ggc tac aat ttc      400
Ala Leu Glu Tyr Phe Gly Glu Met Leu Lys Ala Ala Gly Tyr Asn Phe
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90	95	100	
tat ggc acc gag agg tta tat	agt ggc atc agt g		434
Tyr Gly Thr Glu Arg Leu Tyr	Ser Gly Ile Ser		
105	110		

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 <212> DNA
 <213> Homo sapiens

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 <222> 91..420

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ttgccgggag tgggtgtgatt cccgaccaag atg gcg gcc gtg ggg cga gtc ggc	114
Met Ala Ala Val Gly Arg Val Gly	
1 5	
tcc ttc ggt tct tct ccg ccg gga tta tcc tcg act tac act ggc ggc	162
Ser Phe Gly Ser Ser Pro Pro Gly Leu Ser Ser Thr Tyr Thr Gly Gly	
10 15 20	
ccc ttg ggc aac gag ata gcg tcg ggc aac ggt ggc gcc gcg gca ggc	210
Pro Leu Gly Asn Glu Ile Ala Ser Gly Asn Gly Gly Ala Ala Ala Gly	
25 30 35 40	
gac gac gag gac ggg cag aac ctt tgg tcc tgc atc ctc agc gag gtc	258
Asp Asp Glu Asp Gly Gln Asn Leu Trp Ser Cys Ile Leu Ser Glu Val	
45 50 55	
tcc acc cgc tcg cgc tcc aag ctc cct gcg ggg aag aac gtg cta ctg	306
Ser Thr Arg Ser Arg Ser Lys Leu Pro Ala Gly Lys Asn Val Leu Leu	
60 65 70	
ctg ggt gaa gat gga gct gga aaa aca agc tta ata aga aaa att cag	354
Leu Gly Glu Asp Gly Ala Gly Lys Thr Ser Leu Ile Arg Lys Ile Gln	
75 80 85	
gga ata gag gag tat aag aaa gga aga gga ttg gaa tat ttg tac tta	402
Gly Ile Glu Glu Tyr Lys Lys Gly Arg Gly Leu Glu Tyr Leu Tyr Leu	
90 95 100	
aat gtg cat gat gaa gac ag	422
Asn Val His Asp Glu Asp	
105 110	

<210> 1702
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
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<400> 1702	
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aaccagactg ggggcgagct gagcacctgt agtcaatcac acgcagcttt taggtttggt 120
tgaataagag atctgacctg accggcccaa ctgtacaact cttcaaggaa aattcgattt 180
tgcagtggga agaataagta acattgatca ag atg aat gcc atg ctg gag act 233
Met Asn Ala Met Leu Glu Thr
1 5
ccc gaa ctc cca gcc gtg ttt gat gga gtg aag ctg gct gca gtg gct 281
Pro Glu Leu Pro Ala Val Phe Asp Gly Val Lys Leu Ala Ala Val Ala
10 15 20
gct gtg ctg tac gtg atc gtc ngg tgt ttg aac ctg aag agc ccc aca 329
Ala Val Leu Tyr Val Ile Val Xaa Cys Leu Asn Leu Lys Ser Pro Thr
25 30 35
gcc cca cct gac ctc tac ttc cag gac tcg ggg ctc tca cgc ttt ctg 377
Ala Pro Pro Asp Leu Tyr Phe Gln Asp Ser Gly Leu Ser Arg Phe Leu
40 45 50 55
ctc aag tcc tgt cct ctt ctg acc aaa gaa tac a 411
Leu Lys Ser Cys Pro Leu Leu Thr Lys Glu Tyr
60 65

<210> 1703
<211> 534
<212> DNA
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ctgtcccact cactctttcc cctgcgcgtc ctgccggcag ctccaaccat gggaggccgc 120
gtctttctcg cattctgtgt ctggtgact ctgnncggga gctgaaaccc aggactccag 180
gggctgtgcc cgggtggtgcc ctcagaactc ctctgtgtgc a atg cca ccg cct gtc 236
Met Pro Pro Pro Val
1 5
gct gca atc cag ggt tca gct ctt ttt ctg aga tca tca cca ccc cga 284
Ala Ala Ile Gln Gly Ser Ala Leu Phe Leu Arg Ser Ser Pro Pro Arg
10 15 20
cgg aga ctt gtg acg aca tca acg agt gtg caa cac cgt cga aag tgt 332
Arg Arg Leu Val Thr Thr Ser Thr Ser Val Gln His Arg Arg Lys Cys
25 30 35
cat gcg gaa aat tct cgg act gct gga aca cag agg gga gct acg act 380
His Ala Glu Asn Ser Arg Thr Ala Gly Thr Gln Arg Gly Ala Thr Thr
40 45 50
gcg tgt gca gcc cgg gat atg agc ctg ttt ctg ggg caa aaa cat tca 428
Ala Cys Ala Ala Arg Asp Met Ser Leu Phe Leu Gly Gln Lys His Ser
55 60 65
aga atg aga gcg aga aca cct gtc aag atg tgg acg agt gca gct ccg 476
Arg Met Arg Ala Arg Thr Pro Val Lys Met Trp Thr Ser Ala Ala Pro
70 75 80 85
ggc agc atc agt gtg aca gct cca ccg tct gct tca aca ccg tgg gtt 524
Gly Ser Ile Ser Val Thr Ala Pro Pro Ser Ala Ser Thr Pro Trp Val
90 95 100
cat aca gct g 534

His Thr Ala

<210> 1704

<211> 317

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 136..315

<400> 1704

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tgattttttt gtacc atg gct ttg gtt cac aaa ttg ctg cgt ggt act tat 171
Met Ala Leu Val His Lys Leu Leu Arg Gly Thr Tyr
1 5 10
ttt ctc aga aaa ttc tct aag cca act tct gcc ttg tat cca ttt ttg 219
Phe Leu Arg Lys Phe Ser Lys Pro Thr Ser Ala Leu Tyr Pro Phe Leu
15 20 25
ggg att cgc ttt gca gag tat tcc agt agt ctt cag aaa cca gtg gct 267
Gly Ile Arg Phe Ala Glu Tyr Ser Ser Ser Leu Gln Lys Pro Val Ala
30 35 40
tct cct ggc aaa sct cct cac aga gga aga ctg aag ggg att tgc aag 315
Ser Pro Gly Lys Xaa Pro His Arg Gly Arg Leu Lys Gly Ile Cys Lys
45 50 55 60
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<210> 1705

<211> 527

<212> DNA

<213> Homo sapiens

<220>

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<222> 92..526

<400> 1705

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gattcacttg tgtgcggaac tcctcgggaac c atg gcg tcc ctt tcc ctt gca 112
Met Ala Ser Leu Ser Leu Ala
1 5
cct gtt aac atc ttt aag gca gga gct gat gaa gag aga gca gag aca 160
Pro Val Asn Ile Phe Lys Ala Gly Ala Asp Glu Glu Arg Ala Glu Thr
10 15 20
gct cgt ctg act tct ttt att ggt gcc atc gcc att gga gac ttg gta 208
Ala Arg Leu Thr Ser Phe Ile Gly Ala Ile Ala Ile Gly Asp Leu Val
25 30 35
aag agc acc ttg gga ccc aaa ggc atg gac aaa att ctt cta agc agt 256
Lys Ser Thr Leu Gly Pro Lys Gly Met Asp Lys Ile Leu Leu Ser Ser
40 45 50 55
gga cga gat gcc tct ctt atg gta acc aat gat ggt gcc act att cta 304

Gly	Arg	Asp	Ala	Ser	Leu	Met	Val	Thr	Asn	Asp	Gly	Ala	Thr	Ile	Leu	
				60					65					70		
aaa	aac	att	ggg	ggt	gac	aat	cca	gca	gct	aaa	ggt	tta	ggt	gat	atg	352
Lys	Asn	Ile	Gly	Val	Asp	Asn	Pro	Ala	Ala	Lys	Val	Leu	Val	Asp	Met	
			75					80					85			
tca	agg	ggt	caa	gat	gat	gaa	ggt	ggt	gat	ggc	act	acc	tct	ggt	acc	400
Ser	Arg	Val	Gln	Asp	Asp	Glu	Val	Gly	Asp	Gly	Thr	Thr	Ser	Val	Thr	
		90				95					100					
ggt	tta	gca	gca	gaa	tta	tta	agg	gaa	gca	gaa	tct	ttr	rkt	gca	aaa	448
Val	Leu	Ala	Ala	Glu	Leu	Leu	Arg	Glu	Ala	Glu	Ser	Leu	Xaa	Ala	Lys	
		105				110					115					
rag	att	cat	cca	cag	acc	atc	ata	gcg	ggg	tgg	aga	gag	cca	cga	ggc	496
Xaa	Ile	His	Pro	Gln	Thr	Ile	Ile	Ala	Gly	Trp	Arg	Glu	Pro	Arg	Gly	
120					125					130					135	
tgc	aga	gag	gcg	ctg	ttg	agt	tct	gca	ggt	g						527
Cys	Arg	Glu	Ala	Leu	Leu	Ser	Ser	Ala	Val							
				140					145							

<210> 1706
 <211> 330
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 41..328

<400> 1706																
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				Met	Val	Met	Ala	Glu								
				1				5								
ggg	acg	gca	gtg	ctg	agg	cgg	aac	agg	ccg	ggc	acc	aag	gcg	cag	gat	103
Gly	Thr	Ala	Val	Leu	Arg	Arg	Asn	Arg	Pro	Gly	Thr	Lys	Ala	Gln	Asp	
			10					15						20		
ttc	tat	aat	tgg	cct	gat	gaa	tcc	ttt	gat	gaa	atg	gac	agt	aca	cta	151
Phe	Tyr	Asn	Trp	Pro	Asp	Glu	Ser	Phe	Asp	Glu	Met	Asp	Ser	Thr	Leu	
		25				30						35				
gct	ggt	caa	cag	tat	att	caa	cag	aac	ata	aga	gca	gat	tgc	tcc	aat	199
Ala	Val	Gln	Gln	Tyr	Ile	Gln	Gln	Asn	Ile	Arg	Ala	Asp	Cys	Ser	Asn	
		40				45						50				
att	gac	aaa	att	ctt	gaa	cca	cct	gaa	ggc	caa	gat	gaa	ggg	gtg	tgg	247
Ile	Asp	Lys	Ile	Leu	Glu	Pro	Pro	Glu	Gly	Gln	Asp	Glu	Gly	Val	Trp	
		55				60					65					
aag	tat	gaa	cat	tta	agg	cag	ttc	tgc	ctt	gag	cta	aat	gga	ctt	gct	295
Lys	Tyr	Glu	His	Leu	Arg	Gln	Phe	Cys	Leu	Glu	Leu	Asn	Gly	Leu	Ala	
70					75				80					85		
gtc	aaa	ctt	cag	agt	gaa	tgc	cat	cca	gat	act	tg					330
Val	Lys	Leu	Gln	Ser	Glu	Cys	His	Pro	Asp	Thr						
				90					95							

<210> 1707
 <211> 414
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 103..414

<400> 1707

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caggctctat tccgttcgct ggttcgccac ctcaggggaa cg atg gcc atg gag 114
Met Ala Met Glu
1
tcc aca gcc act gcc gcc gtc gcc gcg gag ctg gtt tct gcc gac aaa 162
Ser Thr Ala Thr Ala Ala Val Ala Ala Glu Leu Val Ser Ala Asp Lys
5 10 15 20
att gaa gat gtt cct gct cct tct aca tct gca gat aaa gtg gag agt 210
Ile Glu Asp Val Pro Ala Pro Ser Thr Ser Ala Asp Lys Val Glu Ser
25 30 35
ctg gat gtg gat agt gaa gct aag aaa cta ttg ggt tta gga cag aaa 258
Leu Asp Val Asp Ser Glu Ala Lys Lys Leu Leu Gly Leu Gly Gln Lys
40 45 50
cat ctg gtg atg ggg gat att cca gca gct gtc aat gca ttc cag gaa 306
His Leu Val Met Gly Asp Ile Pro Ala Ala Val Asn Ala Phe Gln Glu
55 60 65
gca gct agt ctt tta ggt aag aag tat gga gag aca gct aat gag tgt 354
Ala Ala Ser Leu Leu Gly Lys Lys Tyr Gly Glu Thr Ala Asn Glu Cys
70 75 80
gga gaa gcc ttc ttt ttc tat ggg aaa tca ctt ctg gag ttg gca aga 402
Gly Glu Ala Phe Phe Phe Tyr Gly Lys Ser Leu Leu Glu Leu Ala Arg
85 90 95 100
atg gag aat ggt 414
Met Glu Asn Gly

<210> 1708

<211> 487

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 170..487

<400> 1708

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caggctctat tccgttcgct ggttcgccac ctcaggggaa cgatggccat ggagtccaca 120
gccactgccg ccgtcgccgc ggagctgggt tctgccgaca aaattgaag atg ttc ctg 178
Met Phe Leu
1
ctc ctt cta cat ctg cag ata aag tgg aga gca acc att aat ctg ctt 226
Leu Leu Leu His Leu Gln Ile Lys Trp Arg Ala Thr Ile Asn Leu Leu
5 10 15
tct gtc act gaa gat ggg ttg cat ttt gta gaa tat tat cta aat aga 274
Ser Val Thr Glu Asp Gly Leu His Phe Val Glu Tyr Tyr Leu Asn Arg

20	25	30	35	
atc ata cat ctg gat gtg gat agt gaa gct aag nnr cta ttg ggt tta				322
Ile Ile His Leu Asp Val Asp Ser Glu Ala Lys Xaa Leu Leu Gly Leu				
	40	45	50	
gga cag aaa cat ctg gtg atg ggg gat att cca gca gct gtc aat gca				370
Gly Gln Lys His Leu Val Met Gly Asp Ile Pro Ala Ala Val Asn Ala				
	55	60	65	
ttc cag gaa gca gct agt ctt tta ggt aag aag kat gga gag aca gct				418
Phe Gln Glu Ala Ala Ser Leu Leu Gly Lys Lys Xaa Gly Glu Thr Ala				
	70	75	80	
aat gag tgt gga gaa gcc ttc ttt ttc tat ggg aaa tca ctt ctg gag				466
Asn Glu Cys Gly Glu Ala Phe Phe Phe Tyr Gly Lys Ser Leu Leu Glu				
	85	90	95	
ttg gca aga atg gag aat ggt				487
Leu Ala Arg Met Glu Asn Gly				
100	105			

<210> 1709
 <211> 393
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 229..393

<400> 1709	
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cagagcacgg ttcccataag ggcggcgaga tcagcctcct gtctcatctg gaagaccacc	120
actctggggg ctcagaggaa tgatggaagc cttgggggtt ctaaaattgg aagtgaatgg	180
cccatggtg acggtggccc tgtcagtggc tctcttgccc ctctgaa atg gta ctc	237
	Met Val Leu
	1
cac atc agc att ctc aag act gga gaa gtt agg cct cag aca tcc caa	285
His Ile Ser Ile Leu Lys Thr Gly Glu Val Arg Pro Gln Thr Ser Gln	
	5 10 15
gcc ttc tcc ttt cat tgg aaa ctt gac att ttt ccg cca ggg ttt ttg	333
Ala Phe Ser Phe His Trp Lys Leu Asp Ile Phe Pro Pro Gly Phe Leu	
	20 25 30 35
gga aag cca aat gga gct caa gaa gcy gta tgg amc tct gtg tgg gta	381
Gly Lys Pro Asn Gly Ala Gln Glu Ala Val Trp Xaa Ser Val Trp Val	
	40 45 50
cta tct tgg tcg	393
Leu Ser Trp Ser	
	55

<210> 1710
 <211> 516
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 294..515

<400> 1710

atcttgactc cagtgtctcg tttgcagtcg gcgctttagg ggaactgtct tcctccgcag 60
gcgcgaggct gggtagagg tctattgtct gtggttgact ccgtactttg gtctgaggcc 120
ttcgggagct ttcccagggc agtttagcaga agccgcagcg gccgcccccg cccgtctcct 180
ctgtccctgg gcccgaggagg gaccaacttg gcgtcacgcc cctcagcggg cgccactctc 240
ttctctgttg ttgggtccgc atcgtattcc cggaatcaga cggtgcccca tag atg 296

Met

1

gcc agc ttt ccc ccg agg gtc aac gag aaa gag atc gtg aga tta cgt 344
Ala Ser Phe Pro Pro Arg Val Asn Glu Lys Glu Ile Val Arg Leu Arg

5

10

15

act ata ggt gaa ctt tta gct cct gca gct cct ttt gac aag aaa tgt 392
Thr Ile Gly Glu Leu Leu Ala Pro Ala Ala Pro Phe Asp Lys Lys Cys

20

25

30

ggt cgt gaa aat tgg act gtt gct ttt gct cca gat ggt tca tac ttt 440
Gly Arg Glu Asn Trp Thr Val Ala Phe Ala Pro Asp Gly Ser Tyr Phe

35

40

45

gct tgg tca caa gga cat cgc aca gta aag ctt gtt ccg tgg tcc cag 488
Ala Trp Ser Gln Gly His Arg Thr Val Lys Leu Val Pro Trp Ser Gln

50

55

60

65

tgc ctt cag aac ttt ctc ttg cat ggc a 516

Cys Leu Gln Asn Phe Leu Leu His Gly

70

<210> 1711

<211> 509

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 187..507

<400> 1711

agtacaaggt ccacattaca agccaaagct cagaaatttc tggaggtggt gtatcaaaat 60
ttactctgcg agactctgct gaactggctg catcagggag aaatttcac tcccagaagg 120
gtgttgctca tcgtttcttc ccggaaacat ctgcagagac tagcttttca ggctaaggta 180
tcctcc atg atg tta cca ttg caa ggt gcc cag atg ctg cag atg ctg 228

Met Met Leu Pro Leu Gln Gly Ala Gln Met Leu Gln Met Leu

1

5

10

gag aaa tcc ttg agg aag agc ctc cca gca tcc tta aag gtt tat gga 276
Glu Lys Ser Leu Arg Lys Ser Leu Pro Ala Ser Leu Lys Val Tyr Gly

15

20

25

30

act gtc ttt cac ata aac cat gga aat cca ttc aat ctg aag gct gtg 324

Thr Val Phe His Ile Asn His Gly Asn Pro Phe Asn Leu Lys Ala Val

35

40

45

gtg gac aag tgg cct gat ttt aat aca gtg gtt gtc tgc cct cag gag 372

Val Asp Lys Trp Pro Asp Phe Asn Thr Val Val Val Cys Pro Gln Glu

50

55

60

cag gat atg aca gat gac ctt gat cac tat acc aat act tac caa atc 420

Gln	Asp	Met	Thr	Asp	Asp	Leu	Asp	His	Tyr	Thr	Asn	Thr	Tyr	Gln	Ile	
		65					70				75					
tac	tcc	aaa	gat	ccc	naa	aac	tgt	cag	gnc	ttc	ctt	gga	tca	cca	gaa	468
Tyr	Ser	Lys	Asp	Pro	Xaa	Asn	Cys	Gln	Xaa	Phe	Leu	Gly	Ser	Pro	Glu	
	80					85				90						
ctc	atc	aac	tgg	aaa	cag	cat	tta	cag	att	caa	agt	tca	ca			509
Leu	Ile	Asn	Trp	Lys	Gln	His	Leu	Gln	Ile	Gln	Ser	Ser				
95					100					105						

<210> 1712
 <211> 244
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 34..243

<400> 1712																	
aaggtaaaat	ttcccactgc	gaggcaggca	gtg	atg	ctg	cgg	ccg	ctt	cgc	act						54	
											Met	Leu	Arg	Pro	Leu	Arg	Thr
											1				5		
gtg	gct	cct	gcc	gac	cgc	cag	gcg	ctg	tta	cag	tgg	atg	cga	act	aac		102
Val	Ala	Pro	Ala	Asp	Arg	Gln	Ala	Leu	Leu	Gln	Trp	Met	Arg	Thr	Asn		
		10				15					20						
cgt	aag	tca	tta	tat	cgt	act	gca	gaa	acc	agc	tca	act	atg	caa	aac		150
Arg	Lys	Ser	Leu	Tyr	Arg	Thr	Ala	Glu	Thr	Ser	Ser	Thr	Met	Gln	Asn		
	25				30					35							
tac	cac	cag	gac	tgg	ccg	aca	cca	gga	ggg	att	cca	gag	acc	aca	ctg		198
Tyr	His	Gln	Asp	Trp	Pro	Thr	Pro	Gly	Gly	Ile	Pro	Glu	Thr	Thr	Leu		
40				45						50					55		
cag	gga	gca	tac	aga	aag	aaa	att	aag	aga	tca	gat	gca	gca	gca	g		244
Gln	Gly	Ala	Tyr	Arg	Lys	Lys	Ile	Lys	Arg	Ser	Asp	Ala	Ala	Ala			
			60						65						70		

<210> 1713
 <211> 394
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 53..394

<400> 1713																	
ctcgcacatgct	cctgacgcag	aagggttttga	acctttttttc	acctcgtctg	aa	atg	gct									58	
											Met	Ala					
											1						
gcc	tcc	cag	tgt	ctc	tgc	tgc	tca	aaa	ttt	ctc	ttc	cag	aga	cag	aac		106
Ala	Ser	Gln	Cys	Leu	Cys	Cys	Ser	Lys	Phe	Leu	Phe	Gln	Arg	Gln	Asn		
	5					10					15						
ctc	gcc	tgt	ttc	ctc	aca	aac	cca	cac	tgt	ggc	agc	ctt	gtt	aat	gca		154

<220>
 <221> CDS
 <222> 113..469

<400> 1715
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 gcaagagctg gttcaggtgg cagccacagc agcctcaggg acctcagcaa ct atg gcc 118
 Met Ala
 1
 tcc tgc cca gac tct gat aat agc tgg gtg ctt gct ggc tcc gag agc 166
 Ser Cys Pro Asp Ser Asp Asn Ser Trp Val Leu Ala Gly Ser Glu Ser
 5 10 15
 ctg cca gtg gag aca ctg ggc ccg gca tcc agg atg gac cca gaa tct 214
 Leu Pro Val Glu Thr Leu Gly Pro Ala Ser Arg Met Asp Pro Glu Ser
 20 25 30
 gag aga gcc ctg cag gcc cct cac agc ccc tcc aag aca gat ggg aaa 262
 Glu Arg Ala Leu Gln Ala Pro His Ser Pro Ser Lys Thr Asp Gly Lys
 35 40 45 50
 gaa tta gct ggg acc atg gat gga gaa ggg acg ctc ttc cag act gaa 310
 Glu Leu Ala Gly Thr Met Asp Gly Glu Gly Thr Leu Phe Gln Thr Glu
 55 60 65
 agc cct cag tct ggc agc att cta aca gag gag act gag gtc aag ggc 358
 Ser Pro Gln Ser Gly Ser Ile Leu Thr Glu Glu Thr Glu Val Lys Gly
 70 75 80
 acc tgg aag gtg atg ttt gtg tgg agc tcc tgg ccc agg aga cac 406
 Thr Trp Lys Val Met Phe Val Val Trp Ser Ser Trp Pro Arg Arg His
 85 90 95
 agt agt cca ggg aga ctg cag nag aca cgt gtg aca ggc ctg gga cag 454
 Ser Ser Pro Gly Arg Leu Gln Xaa Thr Arg Val Thr Gly Leu Gly Gln
 100 105 110
 aca cac agg act gga ag 471
 Thr His Arg Thr Gly
 115

<210> 1716
 <211> 355
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 56..355

<400> 1716
 atgctgggag cctggaggac tagcgaggag gagttgagag aacggagcgg acgcc atg 58
 Met
 1
 gcg acc aac atc gag cag att ttt agg tct ttc gtg gtc agt aaa ttc 106
 Ala Thr Asn Ile Glu Gln Ile Phe Arg Ser Phe Val Val Ser Lys Phe
 5 10 15
 cgg gaa att caa cag gag ctt tcc agt gga agg aat gaa ggc cag ctg 154
 Arg Glu Ile Gln Gln Glu Leu Ser Ser Gly Arg Asn Glu Gly Gln Leu

20	25	30	
aat ggt gaa aca aat aca ccc att gaa gga aac cag gcg ggt gat gca			202
Asn Gly Glu Thr Asn Thr Pro Ile Glu Gly Asn Gln Ala Gly Asp Ala			
35	40	45	
gct gcc tct gcc agg agt cta cca aat gaa gaa ata gtg cag aag ata			250
Ala Ala Ser Ala Arg Ser Leu Pro Asn Glu Glu Ile Val Gln Lys Ile			
50	55	60	65
gag gaa gta ctt tct ggg gtc tta gat aca gaa cta cga tat aag cca			298
Glu Glu Val Leu Ser Gly Val Leu Asp Thr Glu Leu Arg Tyr Lys Pro			
70	75	80	
gac ttg aaa gag ggc tcc aga aaa agt aga tgc gta tct gta caa aca			346
Asp Leu Lys Glu Gly Ser Arg Lys Ser Arg Cys Val Ser Val Gln Thr			
85	90	95	
gat cct act			355
Asp Pro Thr			
100			
<210> 1717			
<211> 411			
<212> DNA			
<213> Homo sapiens			
<220>			
<221> CDS			
<222> 14..409			
<400> 1717			
agtacttggg cgc atg cgg caa ccg tat ctc agt tct cgc gag gtt tcg			49
Met Arg Gln Pro Tyr Leu Ser Ser Arg Glu Val Ser			
1	5	10	
tct tcc cgg aag cgt tgg agg aca ttc cct gtt gac tgc gtc gcg atg			97
Ser Ser Arg Lys Arg Trp Arg Thr Phe Pro Val Asp Cys Val Ala Met			
15	20	25	
tgt ggc gac tgt gtg gag aag gaa tat ccc aac cgg ggt aat acc tgc			145
Cys Gly Asp Cys Val Glu Lys Glu Tyr Pro Asn Arg Gly Asn Thr Cys			
30	35	40	
ctg gag aat gga tct ttc tta ctg aac ttt aca ggc tgt gca gtg tgc			193
Leu Glu Asn Gly Ser Phe Leu Leu Asn Phe Thr Gly Cys Ala Val Cys			
45	50	55	60
agt aag cgg gat ttt atg ctg atc aca aac aaa tcc ttg aaa gaa gaa			241
Ser Lys Arg Asp Phe Met Leu Ile Thr Asn Lys Ser Leu Lys Glu Glu			
65	70	75	
gat gga gaa gaa ata gtt acc tat gat cat ttg tgt aag aat tgt cat			289
Asp Gly Glu Glu Ile Val Thr Tyr Asp His Leu Cys Lys Asn Cys His			
80	85	90	
cat gta ata gcc aga cat gag tat aca ttc agt atc atg gat gaa ttt			337
His Val Ile Ala Arg His Glu Tyr Thr Phe Ser Ile Met Asp Glu Phe			
95	100	105	
cag gag tat acc atg ctg tgt ctg tta tgc ggc aaa gcg aag ata cta			385
Gln Glu Tyr Thr Met Leu Cys Leu Leu Cys Gly Lys Ala Lys Ile Leu			
110	115	120	
tca gka ttc tcc ctg atg acc ccc ga			411
Ser Xaa Phe Ser Leu Met Thr Pro			

125

130

<210> 1718
 <211> 554
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 78..554

<400> 1718

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 gagccagagc cagagcc atg gac agc ctc ttc gtg gag gag gtg gcc gcc 110
 Met Asp Ser Leu Phe Val Glu Glu Val Ala Ala
 1 5 10
 tcc ttg gtc agg grg ttc ctc agc aga aag ggc tta aag aag aca tgt 158
 Ser Leu Val Arg Xaa Phe Leu Ser Arg Lys Gly Leu Lys Lys Thr Cys
 15 20 25
 gtg acc atg gac cag gaa cgc cca cgc tct gac ctc agc ata aac aac 206
 Val Thr Met Asp Gln Glu Arg Pro Arg Ser Asp Leu Ser Ile Asn Asn
 30 35 40
 aga aat gat ctt cga aag gtt ttg cat ctt gaa ttt ctc tat aag gag 254
 Arg Asn Asp Leu Arg Lys Val Leu His Leu Glu Phe Leu Tyr Lys Glu
 45 50 55
 aac aag gca aag gaa aat cct cta aaa aca agc ctt gaa ctc atc acc 302
 Asn Lys Ala Lys Glu Asn Pro Leu Lys Thr Ser Leu Glu Leu Ile Thr
 60 65 70 75
 aga tac ttt ctg gat cac ttt gga aat acg gct aac aat ttc act caa 350
 Arg Tyr Phe Leu Asp His Phe Gly Asn Thr Ala Asn Asn Phe Thr Gln
 80 85 90
 gat acc cca atc cct gca ctc tca gtt cca aag aaa aat aac aaa gtg 398
 Asp Thr Pro Ile Pro Ala Leu Ser Val Pro Lys Lys Asn Asn Lys Val
 95 100 105
 cca tca aga tgc tca gag act aca ctg gta aat ata tat gac ctt tca 446
 Pro Ser Arg Cys Ser Glu Thr Thr Leu Val Asn Ile Tyr Asp Leu Ser
 110 115 120
 gat gaa gat gca gga tgg aga aca tca ttg tca gaa aca agc aaa gcc 494
 Asp Glu Asp Ala Gly Trp Arg Thr Ser Leu Ser Glu Thr Ser Lys Ala
 125 130 135
 aga cat gac aat ctt gat gga gat gta ctt ggt aat ttt gta tca tct 542
 Arg His Asp Asn Leu Asp Gly Asp Val Leu Gly Asn Phe Val Ser Ser
 140 145 150 155
 aaa agg ccc ccg 554
 Lys Arg Pro Pro

<210> 1719
 <211> 427
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 55..426

<400> 1719

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Met
1
gcc gag agc gac tgg gac acg gtg acg gtg ctg cgc aag aag ggc cct 105
Ala Glu Ser Asp Trp Asp Thr Val Thr Val Leu Arg Lys Lys Gly Pro
5 10 15
acg gcc gcc cag gcc aaa tcc aag cag gct atc tta gcg gca cag aga 153
Thr Ala Ala Gln Ala Lys Ser Lys Gln Ala Ile Leu Ala Ala Gln Arg
20 25 30
cga gga gaa gat gtg gag act tcc aag aaa tgg gct gct ggc cag aac 201
Arg Gly Glu Asp Val Glu Thr Ser Lys Lys Trp Ala Ala Gly Gln Asn
35 40 45
aaa caa cat tct att acc aag aac acg gcc aag ctg gac cgg gag aca 249
Lys Gln His Ser Ile Thr Lys Asn Thr Ala Lys Leu Asp Arg Glu Thr
50 55 60 65
gag gag ctg cac cat gac agg gtg acc ctg gag gtg ggc aag gtg atc 297
Glu Glu Leu His His Asp Arg Val Thr Leu Glu Val Gly Lys Val Ile
70 75 80
cag caa ggt cgg cag agc aag ggg ctt acg cag aag gac ctg gcc acg 345
Gln Gln Gly Arg Gln Ser Lys Gly Leu Thr Gln Lys Asp Leu Ala Thr
85 90 95
ama atc aat gag aag cca cag gtg atc gcg gac tat gag agc gga cgg 393
Xaa Ile Asn Glu Lys Pro Gln Val Ile Ala Asp Tyr Glu Ser Gly Arg
100 105 110
gcc ata ccc aat aac cag gtg ctt ggc aaa atc g 427
Ala Ile Pro Asn Asn Gln Val Leu Gly Lys Ile
115 120

<210> 1720

<211> 703

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 159..701

<400> 1720

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agacacgttg cccaccgctc ctctncmgag gtctgtagtc gcggagaaac acatgttgcg 120
ttactaacgt tcagaggtct gcgacagctt cgatttga atg act agc cgg gaa cac 176
Met Thr Ser Arg Glu His
1 5
caa gtt tca ctg tgt aat tgc gtc ccc cta ctc cgg cgc ctc ctt tgc 224
Gln Val Ser Leu Cys Asn Cys Val Pro Leu Leu Arg Arg Leu Leu Cys
10 15 20
gac gct ccc tgg aga aaa gca cgc cca ctg cac gcg ctc agt cgc tac 272
Asp Ala Pro Trp Arg Lys Ala Arg Pro Leu His Ala Leu Ser Arg Tyr
25 30 35

ttc cgc tct cga gtg tct cca agc aag atg gcg gag gag ccg cag tct	320
Phe Arg Ser Arg Val Ser Pro Ser Lys Met Ala Glu Glu Pro Gln Ser	
40 45 50	
gtg ttg cag ctt cct act tca att gct gct gga ggg gaa gga ctt acg	368
Val Leu Gln Leu Pro Thr Ser Ile Ala Ala Gly Gly Glu Gly Leu Thr	
55 60 65 70	
gat gtc tcc cca gaa aca acc acc ccg gag ccc ccg tct tcc gct gca	416
Asp Val Ser Pro Glu Thr Thr Thr Pro Glu Pro Pro Ser Ser Ala Ala	
75 80 85	
gtt tcc ccg gga aca gag gaa cct gct ggc gac acc aag aaa aaa att	464
Val Ser Pro Gly Thr Glu Glu Pro Ala Gly Asp Thr Lys Lys Lys Ile	
90 95 100	
gac att ttg cta aag gct gtg gga gac act cct att atg aaa aca aag	512
Asp Ile Leu Leu Lys Ala Val Gly Asp Thr Pro Ile Met Lys Thr Lys	
105 110 115	
aag tgg gca gta gag cga aca cga acc atc caa gga ctc att gac ttc	560
Lys Trp Ala Val Glu Arg Thr Arg Thr Ile Gln Gly Leu Ile Asp Phe	
120 125 130	
atc aaa aag ttt ctt aaa ctt gtg gcc tca gaa cag ttg ttt att tat	608
Ile Lys Lys Phe Leu Lys Leu Val Ala Ser Glu Gln Leu Phe Ile Tyr	
135 140 145 150	
gtg aat cag tcc ttt gct cct tcc cca gac caa gaa gtt gga act ctc	656
Val Asn Gln Ser Phe Ala Pro Ser Pro Asp Gln Glu Val Gly Thr Leu	
155 160 165	
tat gag tgt ttt ggc agt ggt ggt aac tgg ttt tac att act gca ag	703
Tyr Glu Cys Phe Gly Ser Gly Gly Asn Trp Phe Tyr Ile Thr Ala	
170 175 180	

<210> 1721
 <211> 334
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 44..334

<400> 1721	
gcaggaacat ggcgcaactc tgtctgagga ggagtttcag cgg atg cag gct cag	55
Met Gln Ala Gln	
1	
ctc ctg gaa ctc cgg aca aac aac tac cag ctt tca gat gaa cta cgc	103
Leu Leu Glu Leu Arg Thr Asn Asn Tyr Gln Leu Ser Asp Glu Leu Arg	
5 10 15 20	
aag aat ggt gtt gaa ctc acc agt ctt cga cag aag gtc gcc tac ttg	151
Lys Asn Gly Val Glu Leu Thr Ser Leu Arg Gln Lys Val Ala Tyr Leu	
25 30 35	
gat aag gag ttc agc aaa gct cag aag gca ctg agc aag agc aag aaa	199
Asp Lys Glu Phe Ser Lys Ala Gln Lys Ala Leu Ser Lys Ser Lys Lys	
40 45 50	
gct cag gaa gtc gag gta ttg ctg agt gaa aat gag atg ctg cag gca	247
Ala Gln Glu Val Glu Val Leu Leu Ser Glu Asn Glu Met Leu Gln Ala	
55 60 65	

aag ctg cac agc cag gag gag gac ttc cgt ttg cag aac aca cta atg 295
 Lys Leu His Ser Gln Glu Glu Asp Phe Arg Leu Gln Asn Thr Leu Met
 70 75 80
 gcc gag ttc agc aag ctc tgc agc cag atg gaa cag ctg 334
 Ala Glu Phe Ser Lys Leu Cys Ser Gln Met Glu Gln Leu
 85 90 95

<210> 1722
 <211> 459
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 290..457

<400> 1722
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 agcaggcaca ggactgggat gctctgccac ccaagcggcc ccgactaggg gcaggaaaca 120
 agatcggagg ccgtaggtta ttgtggtgct ggaagggggc agtctggaga cagtcaaggt 180
 agggaagaca tatgagctac tcaactgtga caagcacaag tctatattgt tgaagaatgg 240
 acgggaccct ggggaagcgc ggccagatat caccaccag agtttgctg atg ctg atg 298
 Met Leu Met
 1
 gat agt ccc ctg aac cga gct ggc ttg cta cag gtt kat atc cat aca 346
 Asp Ser Pro Leu Asn Arg Ala Gly Leu Leu Gln Val Xaa Ile His Thr
 5 10 15
 cag aag aat gtt ctg att gaa gtg aat ccc cag acc cga att ccc aga 394
 Gln Lys Asn Val Leu Ile Glu Val Asn Pro Gln Thr Arg Ile Pro Arg
 20 25 30 35
 acc ttt gac cgc ttt tgt ggc ctc atg gtt caa ctt tta cac aag ctc 442
 Thr Phe Asp Arg Phe Cys Gly Leu Met Val Gln Leu Leu His Lys Leu
 40 45 50
 agt gtt cga gca gct ga 459
 Ser Val Arg Ala Ala
 55

<210> 1723
 <211> 463
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 137..463

<400> 1723
 tttccggtgc tcgcccagagc aggggttgggg cgagtggacc gcgcctctaa aggcgcttgc 60
 cagtgaatc tgggcgatcg cttoctggtc ctgcctctct ccgctgtctc cctggagttc 120
 ttgcaagtgc gccagg atg tct cag gct gag ttt gag aaa gct gca gag gag 172
 Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu
 1 5 10

gtt agg cac ctt aag acc aag cca tgc gat gag gag atg ctg ttc atc	220
Val Arg His Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile	
15 20 25	
tat ggc cac tac aaa caa gca act gtg ggc gac ata aat aca gaa cgg	268
Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg	
30 35 40	
ccc ggg atg ttg gac ttc acg ggc aag gcc aag tgg gat gcc tgg aat	316
Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn	
45 50 55 60	
gag ctg aaa ggg act tcc aag gaa gat gcc atg aaa gct tac atc aac	364
Glu Leu Lys Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn	
65 70 75	
aaa gta gaa gag cta aag aaa aat acg gga tat gag aga ctg gat ttg	412
Lys Val Glu Glu Leu Lys Lys Asn Thr Gly Tyr Glu Arg Leu Asp Leu	
80 85 90	
gtt act gtg cca tgt gtt tat cct aaa ctg aga caa tgc ctt gtt ttt	460
Val Thr Val Pro Cys Val Tyr Pro Lys Leu Arg Gln Cys Leu Val Phe	
95 100 105	
ttc	463
Phe	
<210> 1724	
<211> 489	
<212> DNA	
<213> Homo sapiens	
<220>	
<221> CDS	
<222> 119..487	
<400> 1724	
aaatgggtgc cggcttccga ggagagggcg gaggagagga ggaaggaggc gaactgtggg	60
ccccggcccc attcattgcc gtggccggcg ggcactgggg ccccggtgtt tcagagtc	118
atg gag gcg cta att cct gtc ata aac aag ctg cag gac gtc ttc aac	166
Met Glu Ala Leu Ile Pro Val Ile Asn Lys Leu Gln Asp Val Phe Asn	
1 5 10 15	
acg gtg ggc gcc gac atc atc cag ctg cct caa atc gtc gta gtg gga	214
Thr Val Gly Ala Asp Ile Ile Gln Leu Pro Gln Ile Val Val Val Gly	
20 25 30	
acg cag agc agc gga aag agc tcm gtg cta gaa agc ctg gtg ggg agg	262
Thr Gln Ser Ser Gly Lys Ser Ser Val Leu Glu Ser Leu Val Gly Arg	
35 40 45	
gac ctg ctt ccc aga ggt act gga att gtc acc cgg aga cct ctg att	310
Asp Leu Leu Pro Arg Gly Thr Gly Ile Val Thr Arg Arg Pro Leu Ile	
50 55 60	
ctg caa ctg gtc cat gtt tca caa gaa gat aaa cgg aaa aca aca gga	358
Leu Gln Leu Val His Val Ser Gln Glu Asp Lys Arg Lys Thr Thr Gly	
65 70 75 80	
gaa gaa aat ggr gtg gaa gca gaa gaa tgg ggt aaa ttt ctt cac acc	406
Glu Glu Asn Gly Val Glu Ala Glu Glu Trp Gly Lys Phe Leu His Thr	
85 90 95	
aaa aat aag ctt tac acg gat ttt gat gaa att cga caa gaa att gaa	454
Lys Asn Lys Leu Tyr Thr Asp Phe Asp Glu Ile Arg Gln Glu Ile Glu	

100	105	110	
aat gaa aca gaa aga att tca gga aat aat aag gg			489
Asn Glu Thr Glu Arg Ile Ser Gly Asn Asn Lys			
115	120		

<210> 1725
 <211> 560
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 69..560

<400> 1725	
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ctgcgagg atg gct acc ctg gtt rta aac aag ctc gga gcg gga gta gac	110
Met Ala Thr Leu Val Xaa Asn Lys Leu Gly Ala Gly Val Asp	
1 5 10	
agt ggc cgg cag ggc agc cgg ggg aca gct gta gtg aag gtg cta gag	158
Ser Gly Arg Gln Gly Ser Arg Gly Thr Ala Val Val Lys Val Leu Glu	
15 20 25 30	
tgt gga gtt tgt gaa gat gtc ttt tct ttg caa gga gac aaa gtt ccc	206
Cys Gly Val Cys Glu Asp Val Phe Ser Leu Gln Gly Asp Lys Val Pro	
35 40 45	
cgt ctt ttg ctt tgt ggc cat acc gtc tgt cat gac tgt ctc act cgc	254
Arg Leu Leu Leu Cys Gly His Thr Val Cys His Asp Cys Leu Thr Arg	
50 55 60	
cta cct ctt cat gga aga gca atc cgt tgc cca ttt gat cga caa gta	302
Leu Pro Leu His Gly Arg Ala Ile Arg Cys Pro Phe Asp Arg Gln Val	
65 70 75	
aca gac cta ggt gat tca ggt gtc tgg gga ttg aaa aaa aat ttt gct	350
Thr Asp Leu Gly Asp Ser Gly Val Trp Gly Leu Lys Lys Asn Phe Ala	
80 85 90	
tta ttg gag ctt ttg gaa cga ctg cag aat ggg cct att ggt cag tat	398
Leu Leu Glu Leu Leu Glu Arg Leu Gln Asn Gly Pro Ile Gly Gln Tyr	
95 100 105 110	
gga gct gca gaa gaa tcc att ggg ata tct gga gag agc atc att cgt	446
Gly Ala Ala Glu Glu Ser Ile Gly Ile Ser Gly Glu Ser Ile Ile Arg	
115 120 125	
tgt gat gaa gat gaa gct cac ctt gcc tct gta tat tgc act gtg tgt	494
Cys Asp Glu Asp Glu Ala His Leu Ala Ser Val Tyr Cys Thr Val Cys	
130 135 140	
gca act cat ttg tgc tct gag tgt tct caa gtt act cat tct aca aag	542
Ala Thr His Leu Cys Ser Glu Cys Ser Gln Val Thr His Ser Thr Lys	
145 150 155	
aca tta gca aag cac agg	560
Thr Leu Ala Lys His Arg	
160	

<210> 1726
 <211> 349
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 16..348

<400> 1726

agtgccgggc cagac atg gcg gaa gag gag gtg gcc aag ttg gag aag cac 51
Met Ala Glu Glu Glu Val Ala Lys Leu Glu Lys His
1 5 10
ttg atg ctt ctg cgg cag gag tat gtc aag ctg cag aag aag ctg gcg 99
Leu Met Leu Leu Arg Gln Glu Tyr Val Lys Leu Gln Lys Lys Leu Ala
15 20 25
gag aca gag aag cgc tgc gct ctc ttg gct gcg cag gca aac aag gag 147
Glu Thr Glu Lys Arg Cys Ala Leu Leu Ala Ala Gln Ala Asn Lys Glu
30 35 40
agc agc agc gag tcc ttc atc agc cgt ctg ctg gcc atc gtg gca gac 195
Ser Ser Ser Glu Ser Phe Ile Ser Arg Leu Leu Ala Ile Val Ala Asp
45 50 55 60
ctc tac gag cag gag cag tac agc gat ctg aag ata aag gtt ggg gac 243
Leu Tyr Glu Gln Glu Gln Tyr Ser Asp Leu Lys Ile Lys Val Gly Asp
65 70 75
agg cac atc agt gct cac aag ttt gtc ctg gca gcc cgc agt gac agc 291
Arg His Ile Ser Ala His Lys Phe Val Leu Ala Ala Arg Ser Asp Ser
80 85 90
tgg agt ctg gct aac ttg tct tcc act aaa gag ttg gac ctg tca gat 339
Trp Ser Leu Ala Asn Leu Ser Ser Thr Lys Glu Leu Asp Leu Ser Asp
95 100 105
gct aat cct g 349
Ala Asn Pro
110

<210> 1727

<211> 294

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 105..293

<400> 1727

agtgacaatt aaagatggct gcgcccattgt aacatcacta gcgaccggtr acctcttttt 60
cccccttgcc tggctcctgt ggtggcaggc tgggcacgag gacc atg ctg ggc cgc 116
Met Leu Gly Arg
1
agc ctc cga gaa gtt tct gyg gca ctg aaa caa ggc caa att aca cca 164
Ser Leu Arg Glu Val Ser Xaa Ala Leu Lys Gln Gly Gln Ile Thr Pro
5 10 15 20
aca gag ctc tgt caa aaa tgt ctc tct ctt atc aag aag acc aag ttt 212
Thr Glu Leu Cys Gln Lys Cys Leu Ser Leu Ile Lys Lys Thr Lys Phe
25 30 35

cta aat gcc tac att act gtg tca gaa gag gtg gcc tta aaa caa gct 260
 Leu Asn Ala Tyr Ile Thr Val Ser Glu Glu Val Ala Leu Lys Gln Ala
 40 45 50

gaa gaa tca gaa aag aga tat aag aat gga cag c 294
 Glu Glu Ser Glu Lys Arg Tyr Lys Asn Gly Gln
 55 60

<210> 1728
 <211> 290
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 128..289

<400> 1728
 tagaggggga agttggcgca tgcgcctaaa gctgacgggt ttgaaatggc ttcgatgtta 60
 gccgggaccc gactcagatc gatgytatag aagacaaaca agggaagggt ttttttcctt 120
 ttgcatac atg gct caa ttt gga gga cag aag aat ccg cca tgg gct act 169
 Met Ala Gln Phe Gly Gly Gln Lys Asn Pro Pro Trp Ala Thr
 1 5 10
 cag ttt aca gcc act gca gta tca cag cca gct gca ctg ggt gtt caa 217
 Gln Phe Thr Ala Thr Ala Val Ser Gln Pro Ala Ala Leu Gly Val Gln
 15 20 25 30
 cag cca tca ctc ctt gga gca tct cct acc att tat aca cag caa act 265
 Gln Pro Ser Leu Leu Gly Ala Ser Pro Thr Ile Tyr Thr Gln Gln Thr
 35 40 45
 gca ttg gca gca gca ggc ctt acc a 290
 Ala Leu Ala Ala Ala Gly Leu Thr
 50

<210> 1729
 <211> 227
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 7..225

<400> 1729
 acagag atg gag gga gga tca gag aga gag gga aaa cca gag ata gas 48
 Met Glu Gly Gly Ser Glu Arg Glu Gly Lys Pro Glu Ile Xaa
 1 5 10
 gga aag cca gag agt gaa gga gag cca ggg agt gaa aca agg gct gca 96
 Gly Lys Pro Glu Ser Glu Gly Glu Pro Gly Ser Glu Thr Arg Ala Ala
 15 20 25 30
 gga aag cgc cca gct gag gat gat gta ccc agg aaa gcc aaa aga aaa 144
 Gly Lys Arg Pro Ala Glu Asp Asp Val Pro Arg Lys Ala Lys Arg Lys
 35 40 45
 act aat aag ggg ctg gct cat tac ctc aag gag tat aaa gag gcc ata 192

Thr Asn Lys Gly Leu Ala His Tyr Leu Lys Glu Tyr Lys Glu Ala Ile
 50 55 60
 cac gat atg aat ttc agc aat gag gac atg ata ag
 His Asp Met Asn Phe Ser Asn Glu Asp Met Ile
 65 70

227

<210> 1730
 <211> 291
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 131..289

<400> 1730
 atccaatgct tgatccataa cgggctctcc ataaacaata atataatttt tttaccacca 60
 tgaagccctc caaccctccc caaatgctgt taggttgac ctctcaatcc tatccttggtg 120
 taattcgctt atg aaa tgt aaa tgt ggc att ttt aca ttt att cct atg 169
 Met Lys Cys Lys Cys Gly Ile Phe Thr Phe Ile Pro Met
 1 5 10
 aag ttc caa cag tac ttc act tca gtt tat gat ttt ttt aac ctt tta 217
 Lys Phe Gln Gln Tyr Phe Thr Ser Val Tyr Asp Phe Phe Asn Leu Leu
 15 20 25
 ata ata ata atc agt cac att ttt gtc att tgt att ttc aac aag tct 265
 Ile Ile Ile Ile Ser His Ile Phe Val Ile Cys Ile Phe Asn Lys Ser
 30 35 40 45
 tta aga act ata ttg aac aag aca cc 291
 Leu Arg Thr Ile Leu Asn Lys Thr
 50

<210> 1731
 <211> 412
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 127..411

<400> 1731
 cctctccccc tcttcgcgcg accgagcagt gacttaagca acggagcgcg rtgaagctca 60
 tttttctcct tcttcgcagc cgcgccaggg agctcgcggc gcgcggcccc tgtcctcgg 120
 cccgag atg aat cct gcg gca gaa gcc gag ttc aac atc ctc ctg gcc 168
 Met Asn Pro Ala Ala Glu Ala Glu Phe Asn Ile Leu Leu Ala
 1 5 10
 acc gac tcc tac aag gtt act cac tat aaa caa tat cca ccc aac aca 216
 Thr Asp Ser Tyr Lys Val Thr His Tyr Lys Gln Tyr Pro Pro Asn Thr
 15 20 25 30
 agc aaa gtt tat tcc tac ttt gaa tgc cgt gaa aag aag aca gaa aac 264
 Ser Lys Val Tyr Ser Tyr Phe Glu Cys Arg Glu Lys Lys Thr Glu Asn
 35 40 45

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tcc aaa tta agg aag gtg aaa tat grg gaa aca gta ttt tat ggg ttg      312
Ser Lys Leu Arg Lys Val Lys Tyr Xaa Glu Thr Val Phe Tyr Gly Leu
      50                      55                      60
cag tac att ctt aat aag tac tta aaa ggt aaa gta gta acc aaa gag      360
Gln Tyr Ile Leu Asn Lys Tyr Leu Lys Gly Lys Val Val Thr Lys Glu
      65                      70                      75
aaa atc cag gaa gcc aaa gat gtc tac aaa gaa cat ttc caa gat gat      408
Lys Ile Gln Glu Ala Lys Asp Val Tyr Lys Glu His Phe Gln Asp Asp
      80                      85                      90
gtc t                                                                412
Val
95

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<210> 1732
 <211> 428
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 90..428

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<400> 1732
accacttgca gctgcagccc ttgccttgag tcagtgcgcc gctctccagc ccgcttgaac      60
gctccccgca gccaccgcca cccattgga atg gcc aac agg gga cct gca tat      113
                                Met Ala Asn Arg Gly Pro Ala Tyr
                                1                      5
ggc ctg agc cgg gag gtg cag cag aag att gag aaa caa tat gat gca      161
Gly Leu Ser Arg Glu Val Gln Gln Lys Ile Glu Lys Gln Tyr Asp Ala
      10                      15                      20
gat ctg gag cag atc ctg atc cag tgg atc acc acc cag tgc cga aag      209
Asp Leu Glu Gln Ile Leu Ile Gln Trp Ile Thr Thr Gln Cys Arg Lys
      25                      30                      35                      40
gat gtg ggc cgg ccc cag cct gga cgc gag aac ttc cag aac tgg ctc      257
Asp Val Gly Arg Pro Gln Pro Gly Arg Glu Asn Phe Gln Asn Trp Leu
      45                      50                      55
aag gat ggc acg gtg cta tgt gag ctc att aat gca ctg tac ccc gag      305
Lys Asp Gly Thr Val Leu Cys Glu Leu Ile Asn Ala Leu Tyr Pro Glu
      60                      65                      70
ggg cag gcc cca gta aag aag atc cag gcc tcc acc atg gcc ttc aag      353
Gly Gln Ala Pro Val Lys Lys Ile Gln Ala Ser Thr Met Ala Phe Lys
      75                      80                      85
cag atg gag cag atc tct cag ttc ctg caa gca gct gag cgc tat ggc      401
Gln Met Glu Gln Ile Ser Gln Phe Leu Gln Ala Ala Glu Arg Tyr Gly
      90                      95                      100
att aac acc act gac atc ttc can act                                                                428
Ile Asn Thr Thr Asp Ile Phe Xaa Thr
      105                      110

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<210> 1733
 <211> 363
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 183..362

<400> 1733
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 tgggaggacc aagggcgggc agccgggagc acccaaggca ggaaaatgct ggctggttcc 120
 tctattatgc tctgtgcttc tccctgtcaa aggcttcagc ccacaccgtg gagctaaaca 180
 at atg ttt ggc cag atc cag tcg cct ggt tat cca gac tcc tat ccc 227
 Met Phe Gly Gln Ile Gln Ser Pro Gly Tyr Pro Asp Ser Tyr Pro
 1 5 10 15
 agt gat tca gag gtg act tgg aat atc act gtc cca gat ggg ttt cgg 275
 Ser Asp Ser Glu Val Thr Trp Asn Ile Thr Val Pro Asp Gly Phe Arg
 20 25 30
 atc aag ctt tac ttc atg cac ttc aac ttg gaa tcc tcc tac ctt tgt 323
 Ile Lys Leu Tyr Phe Met His Phe Asn Leu Glu Ser Ser Tyr Leu Cys
 35 40 45
 gaa tat gac tat gtg aag gta gaa act gag gac cag gtg c 363
 Glu Tyr Asp Tyr Val Lys Val Glu Thr Glu Asp Gln Val
 50 55 60

<210> 1734
 <211> 341
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 135..341

<400> 1734
 tgcagctgcg ggactcagag gcgaacttga ggggctcagg aaggacgaag aaccaccctt 60
 gagagaagag gcagcagcag cggcggcagc agcagcggca gcgacccac cactgccaca 120
 tttgccagga aaca atg ctg cta gcg aca ttc aag ctg tgc gct ggg agc 170
 Met Leu Leu Ala Thr Phe Lys Leu Cys Ala Gly Ser
 1 5 10
 tcc tac aga cac atg cgc aac atg aag ggg ctg agg caa cag gct gtg 218
 Ser Tyr Arg His Met Arg Asn Met Lys Gly Leu Arg Gln Gln Ala Val
 15 20 25
 atg gcc atc agc cag gag ctg aac cgg agg gcc ctg ggg ggc ccc acc 266
 Met Ala Ile Ser Gln Glu Leu Asn Arg Arg Ala Leu Gly Gly Pro Thr
 30 35 40
 cct agc acg tng att aac cag gtt cgg cgg cgg ast ctc tac tcg gtt 314
 Pro Ser Thr Xaa Ile Asn Gln Val Arg Arg Arg Xaa Leu Tyr Ser Val
 45 50 55 60
 ctc ggc tgg aag aga ctc tct aca gtg 341
 Leu Gly Trp Lys Arg Leu Ser Thr Val
 65

<210> 1735
 <211> 263

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 96..263

<400> 1735
agggagccac gccccgcaca gttaacagac gggcgctcag ggagctaggg agctgtgaag 60
ctgctggagg agwtggcgtc cggggagcaa gggcc atg gcc acc gtg cag gag 113
Met Ala Thr Val Gln Glu
1 5
aag gct gct gcg ctg aac ctc tgc gct ctc cac agc ccc gcg cac agg 161
Lys Ala Ala Ala Leu Asn Leu Ser Ala Leu His Ser Pro Ala His Arg
10 15 20
cct ccg ggt ttc agt gta gct cag aag cca ttt gga gcc acg tat gta 209
Pro Pro Gly Phe Ser Val Ala Gln Lys Pro Phe Gly Ala Thr Tyr Val
25 30 35
tgg agc agc atc ata aac act ctt caa aca caa gtg gaa gtg aaa aaa 257
Trp Ser Ser Ile Ile Asn Thr Leu Gln Thr Gln Val Glu Val Lys Lys
40 45 50
cga agg 263
Arg Arg
55

<210> 1736
<211> 625
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 241..624

<400> 1736
agcatgcact tgggatctga ctgcgtttggt aggaaaagga ctggctctga ctcttcascc 60
atcttcaccc aggctggccc ctttggtgaa actacaactc ccaggggtct gtgcgcgaga 120
aggcaggcgg gtttttctac cggaagtccg ctctagctct gggccctaca actgcaccct 180
gagccggagc tgcccagtcg ccgcgggacc ggggcccgtg gggctctggac gggggtcgcc 240
atg atc cgc ttt atc ctc atc cag aac cgg gca ggc aag acg cgc ctg 288
Met Ile Arg Phe Ile Leu Ile Gln Asn Arg Ala Gly Lys Thr Arg Leu
1 5 10 15
gcc aag tgg tac atg cag ttt gat gat gat gag aaa cag aag ctg atc 336
Ala Lys Trp Tyr Met Gln Phe Asp Asp Asp Glu Lys Gln Lys Leu Ile
20 25 30
gag gag gtg cat gcc gtg gtc acc gtc cga gac gcc aaa cac acc aac 384
Glu Glu Val His Ala Val Val Thr Val Arg Asp Ala Lys His Thr Asn
35 40 45
ttt gtg gag ttc cgg aac ttt aag atc att tac cgc cgc tat gct ggc 432
Phe Val Glu Phe Arg Asn Phe Lys Ile Ile Tyr Arg Arg Tyr Ala Gly
50 55 60
ctc tac ttc tgc atc tgt gtg gat gtc aat gac aac aac ctg gct tan 480

Leu	Tyr	Phe	Cys	Ile	Cys	Val	Asp	Val	Asn	Asp	Asn	Asn	Leu	Ala	Xaa	
65					70				75					80		
stg	gag	gcc	att	cac	aac	ttc	gtg	gag	gtc	tta	aac	gaa	tat	ttc	cac	528
Xaa	Glu	Ala	Ile	His	Asn	Phe	Val	Glu	Val	Leu	Asn	Glu	Tyr	Phe	His	
			85					90					95			
aat	gtc	tgt	gaa	ctg	gac	ctg	gtg	ttc	aam	ttt	cta	caa	ggt	tta	cac	576
Asn	Val	Cys	Glu	Leu	Asp	Leu	Val	Phe	Xaa	Phe	Leu	Gln	Gly	Leu	His	
			100				105						110			
ggt	cgt	gga	cga	gat	gtt	cct	ggc	tgg	cga	aat	ccg	aga	gac	cag	cca	g
Gly	Arg	Gly	Arg	Asp	Val	Pro	Gly	Trp	Arg	Asn	Pro	Arg	Asp	Gln	Pro	625
			115				120					125				

<210> 1737

<211> 461

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 81..461

<400> 1737

ctgctccgct	tgaggagaag	cgccaagtgc	gcatggggac	gctatagcaa	ttcgtttgct		60
gtccttccctc	tccttcgaag	atg aca agg	cct acc atc	gtt tct tcc	tgc ctt		113
		Met Thr Arg	Pro Thr Ile	Val Ser Ser	Cys Leu		
		1	5	10			
tgg gcc gtc	agg agt tgg	ttg gga ccc	gct cca acc	ctc ggt tct	tcc		161
Trp Ala Val	Arg Ser Trp	Leu Gly Pro	Ala Pro Thr	Leu Gly Ser	Ser		
	15	20	25				
tgc aat aca	gtg gat aca	att tgt cat	ggc tac tct	gag ata aga	cca		209
Cys Asn Thr	Val Asp Thr	Ile Cys His	Gly Tyr Ser	Glu Ile Arg	Pro		
	30	35	40				
ctt ttt tat	ctg agc ttc	tgt gac ctg	ctc ctg gga	ctt tgc tgg	ctc		257
Leu Phe Tyr	Leu Ser Phe	Cys Asp Leu	Leu Leu Gly	Leu Cys Trp	Leu		
	45	50	55				
acg gag aca	ctt ctc tat	gga gct tca	gta gca aat	aag gac atc	atc		305
Thr Glu Thr	Leu Leu Tyr	Gly Ala Ser	Val Ala Asn	Lys Asp Ile	Ile		
	60	65	70	75			
tgc tat aac	cta caa gca	gtk gga cag	ata ttc tac	att tcc tca	ttt		353
Cys Tyr Asn	Leu Gln Ala	Val Gly Gln	Ile Phe Tyr	Ile Ser Ser	Phe		
	80	85	90				
ctc tac acc	gtc aat tac	atc tgg tat	ttg tac aca	gag ctg agg	atg		401
Leu Tyr Thr	Val Asn Tyr	Ile Trp Tyr	Leu Tyr Thr	Glu Leu Arg	Met		
	95	100	105				
aaa cac acc	cag agt gga	cag agc aca	tct cca ctg	gtg ata gat	tat		449
Lys His Thr	Gln Ser Gly	Gln Ser Thr	Ser Pro Leu	Val Ile Asp	Tyr		
	110	115	120				
act tgt cga	gtt						461
Thr Cys Arg	Val						
	125						

<210> 1738

<211> 281

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 30..281

<400> 1738
gaaacacaga agtaggagtc gaagtagaa atg cag gga aac gaa gta gaa gta 53
Met Gln Gly Asn Glu Val Glu Val
1 5
gaa gca aag aga aat caa gta aac ata aaa atg aaa gta aag aaa aat 101
Glu Ala Lys Arg Asn Gln Val Asn Ile Lys Met Lys Val Lys Lys Asn
10 15 20
caa ata aac gaa gtc gaa gtg gca gtc aag gaa gaa ctg aca gtg ttg 149
Gln Ile Asn Glu Val Glu Val Ala Val Lys Glu Glu Leu Thr Val Leu
25 30 35 40
aaa aat caa aaa aac ggg aac ata gtc cca gca aag aaa aat cta gaa 197
Lys Asn Gln Lys Asn Gly Asn Ile Val Pro Ala Lys Lys Asn Leu Glu
45 50 55
agc gta gta gaa gca aag aac gtt ccc aca aac gag atc aca gtg ata 245
Ser Val Val Glu Ala Lys Asn Val Pro Thr Asn Glu Ile Thr Val Ile
60 65 70
gta agg acc agt cag aca aac atg atc gtc gaa gga 281
Val Arg Thr Ser Gln Thr Asn Met Ile Val Glu Gly
75 80

<210> 1739
<211> 280
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 91..279

<400> 1739
aggaaagttag atgaactagt acgggatggc tcagacttgt aaagtgtcta agtcacaacg 60
ctgcagagcc agcttccggg tagcaatggc atg gcc tca gct gtg cca agg cta 114
Met Ala Ser Ala Val Pro Arg Leu
1 5
caa ctg gag ctt cct tac tcg cat ctg agg caa aca cag caa ggc tgg 162
Gln Leu Glu Leu Pro Tyr Ser His Leu Arg Gln Thr Gln Gln Gly Trp
10 15 20
ccc agg ccg ccc aca gtc aac aga tgt tca cgg gag atg gat cag ccc 210
Pro Arg Pro Pro Thr Val Asn Arg Cys Ser Arg Glu Met Asp Gln Pro
25 30 35 40
ctc ttt tgc ttg ttc tat caa gga aag aga tct aas cat ggg caa ggg 258
Leu Phe Cys Leu Phe Tyr Gln Gly Lys Arg Ser Xaa His Gly Gln Gly
45 50 55
tgg aac aca ccc ggt tca ggc c 280
Trp Asn Thr Pro Gly Ser Gly

60

<210> 1740
 <211> 476
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 72..476

<400> 1740
 aagattccgg aaaggggaag agcagccaac atggcggcgg aacgggcgcg gggcagcaac 60
 agtcgcagga g atg atg gag gtt gac agg cgg gtc gag tct gaa gaa tcc 110
 Met Met Glu Val Asp Arg Arg Val Glu Ser Glu Glu Ser
 1 5 10
 ggc gat gaa gaa ggg aag aaa cac agc agt ggc atc gtg gcc gac ctc 158
 Gly Asp Glu Glu Gly Lys Lys His Ser Ser Gly Ile Val Ala Asp Leu
 15 20 25
 agt gaa cag agc ctg aag gat ggg gag gag cgg ggg gag gag gac cca 206
 Ser Glu Gln Ser Leu Lys Asp Gly Glu Glu Arg Gly Glu Glu Asp Pro
 30 35 40 45
 gaa gaa gaa cat gag ctg cct gtg gac atg gaa acc atc aac ctg gac 254
 Glu Glu Glu His Glu Leu Pro Val Asp Met Glu Thr Ile Asn Leu Asp
 50 55 60
 aga gat gca gag gat gtt gat ttg aat cac tat cgc ata ggg aag att 302
 Arg Asp Ala Glu Asp Val Asp Leu Asn His Tyr Arg Ile Gly Lys Ile
 65 70 75
 gaa gga ttt gag gta ctg aag aaa gtg aag act ctc tgc ctc cgc caa 350
 Glu Gly Phe Glu Val Leu Lys Lys Val Lys Thr Leu Cys Leu Arg Gln
 80 85 90
 aat tta att aaa tgc att gag aat ctg gag gag cta cag agt ctt cga 398
 Asn Leu Ile Lys Cys Ile Glu Asn Leu Glu Glu Leu Gln Ser Leu Arg
 95 100 105
 gag ctg gat ctt tac gac aac cag atc aag aag att gag aat ctg gar 446
 Glu Leu Asp Leu Tyr Asp Asn Gln Ile Lys Lys Ile Glu Asn Leu Glu
 110 115 120 125
 gcg cta aca gag ctg gag att cta gat att 476
 Ala Leu Thr Glu Leu Glu Ile Leu Asp Ile
 130 135

<210> 1741
 <211> 485
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 310..483

<400> 1741
 acatgctgcc aggggggaac tgaactcagg gaatggggcc cccagctccc attggggtcg 60

gcgaacctgg tgccaccct tagacaaagt ccaggtctcc cagaggcttt taccagctgg 120
 cccattcct tctgctgctg ggtataataa ggtcctctca acgctgaagt gcctgtgaaa 180
 cacagcccag aggagttctc attggtccta tgggctttgt cttcctctct gccccaccca 240
 gataatcgct gctgccccct cactcccaag atgcagctgt gattctccat cccacacaw 300
 ccctcatca atg gtt gac tgc naa gaa gtg aga aag cca agc tta gaw tca 351
 Met Val Asp Cys Xaa Glu Val Arg Lys Pro Ser Leu Xaa Ser

1 5 10
 tgc tca tgc ctg aac acc ctg aga gcc tgg tnn tsg agg gct ggg tat 399
 Cys Ser Cys Leu Asn Thr Leu Arg Ala Trp Xaa Xaa Arg Ala Gly Tyr
 15 20 25 30
 ccc ctt ggc ctr cca cca gca act gca ccc aac amc cag gct gga gmc 447
 Pro Leu Gly Leu Pro Pro Ala Thr Ala Pro Asn Xaa Gln Ala Gly Xaa
 35 40 45
 acg ctc tgg cac mag aag gtg gcc ttg att tct cag gc 485
 Thr Leu Trp His Xaa Lys Val Ala Leu Ile Ser Gln
 50 55

<210> 1742
 <211> 454
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 226..453

<400> 1742
 ctttttgtga ctcattgtgt ctgtgtcgag gcgtcgggag ggcctaagtc cgtgtgcggt 60
 gcccttcggc cggcctgagc cccagagtca gctcccttt ctcgcccagc gccccaggc 120
 cgctcccggg gctcacggaa tagtaaagaa acacatcata aaacctcca ggacataaag 180
 gtgagcacag accctgtttg gatcaagtca gttcctggag cctga atg atg act gct 237
 Met Met Thr Ala
 1
 gaa tca cgg gaa gcc acg ggt ctg tcc cca cag gct gca cag gag aag 285
 Glu Ser Arg Glu Ala Thr Gly Leu Ser Pro Gln Ala Ala Gln Glu Lys
 5 10 15 20
 gat ggt atc gta ata gtg aag gtg gaa gag gaa gat gag gaa gac cac 333
 Asp Gly Ile Val Ile Val Lys Val Glu Glu Asp Glu Glu Asp His
 25 30 35
 atg tgg ggg cag gat tcc acc cta cag gac acg cct cct cca gac cca 381
 Met Trp Gly Gln Asp Ser Thr Leu Gln Asp Thr Pro Pro Pro Asp Pro
 40 45 50
 gag ata ttc cgc caa cgc ttc agg cgc ttc tgt tac cag aac act ttt 429
 Glu Ile Phe Arg Gln Arg Phe Arg Arg Phe Cys Tyr Gln Asn Thr Phe
 55 60 65
 ggg ccc cga gag gct ctc agt cgg c 454
 Gly Pro Arg Glu Ala Leu Ser Arg
 70 75

<210> 1743
 <211> 404
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 28..402

<400> 1743

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agaccccgag cgcggccgcg gacgaag atg gcg acc gcc atg tac ttg gag cac      54
              Met Ala Thr Ala Met Tyr Leu Glu His
              1              5
tat ctg gac agt atc gag aac ctt ccc tgc gaa ctt .cag agg aac ttc      102
Tyr Leu Asp Ser Ile Glu Asn Leu Pro Cys Glu Leu Gln Arg Asn Phe
10              15              20              25
cag ctg atg cga gag ctg gac cag agg acg gaa gat aag aaa gca gag      150
Gln Leu Met Arg Glu Leu Asp Gln Arg Thr Glu Asp Lys Lys Ala Glu
              30              35              40
att gac atc ctg gct gca gag tac atc tcc acg gtg aag acg ctg tct      198
Ile Asp Ile Leu Ala Ala Glu Tyr Ile Ser Thr Val Lys Thr Leu Ser
              45              50              55
cca gac cag cgc gtg gag cgc ctg cag aag atc cag aac gcc tac agc      246
Pro Asp Gln Arg Val Glu Arg Leu Gln Lys Ile Gln Asn Ala Tyr Ser
60              65              70
aag tgc aag gaa tac agt gac gac aaa gtg cag ctg gcc atg cag acc      294
Lys Cys Lys Glu Tyr Ser Asp Asp Lys Val Gln Leu Ala Met Gln Thr
75              80              85
tac gag atg gtg gat aaa cac att cga agg ctt gat gca gac ctg gcg      342
Tyr Glu Met Val Asp Lys His Ile Arg Arg Leu Asp Ala Asp Leu Ala
90              95              100              105
cgc ttt gaa gca gat ctg aag gac aag atg gag ggc agt gat ttt gaa      390
Arg Phe Glu Ala Asp Leu Lys Asp Lys Met Glu Gly Ser Asp Phe Glu
              110              115              120
agc tcc gga ggg cg      404
Ser Ser Gly Gly
              125
  
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<210> 1744
 <211> 519
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 73..519

<400> 1744

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ttccttctc agttccctta aagcacagcc cagggaaacc tcctcacagt tttcatccag      60
ccacgggccca gc atg tct ggg ggc aaa tac gta gac tcg gag gga cat ctc      111
              Met Ser Gly Gly Lys Tyr Val Asp Ser Glu Gly His Leu
              1              5              10
tac acc gtt ccc atc cgg gaa cag ggc aac atc tac aag ccc aac aac      159
Tyr Thr Val Pro Ile Arg Glu Gln Gly Asn Ile Tyr Lys Pro Asn Asn
15              20              25
aag gcc atg gca gac gag ctg agc gag aag caa gtg tac gac gcg cac      207
  
```

[illegible]

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<210> 1745
<211> 641
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 288..641
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[illegible]

ttt tac cgc ttg ctg tct gcc ctc ttt ggc atc ccn grg gca ctc atc	536
Phe Tyr Arg Leu Leu Ser Ala Leu Phe Gly Ile Pro Xaa Ala Leu Ile	
70 75 80	
tggtggc att tac ttc gcc att ctc tct ttc ctg cac atc tgg gca gtt	584
Trp Gly Ile Tyr Phe Ala Ile Leu Ser Phe Leu His Ile Trp Ala Val	
85 90 95	
gta cca tgc att aag agc ttc ctg att gag att cag tgc atc agc cgt	632
Val Pro Cys Ile Lys Ser Phe Leu Ile Glu Ile Gln Cys Ile Ser Arg	
100 105 110 115	
gtc tat tcc	641
Val Tyr Ser	

<210> 1746
 <211> 388
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 78..386

<400> 1746	
ctggcgcaag catctcttct tttttccacc tcgccttccg cggattccca gcttgagaaa	60
cacctctttg ccccgtc atg cca aag agg aaa gtg acc ttc caa ggc gtg	110
Met Pro Lys Arg Lys Val Thr Phe Gln Gly Val	
1 5 10	
gga gat gag gag gat gag gat gaa atc att gtc ccc aag aag aag ctg	158
Gly Asp Glu Glu Asp Glu Asp Glu Ile Ile Val Pro Lys Lys Lys Leu	
15 20 25	
gtg gac cct gtg gct ggg tca ggg ggt cct ggg agc cgc ttt aaa ggc	206
Val Asp Pro Val Ala Gly Ser Gly Gly Pro Gly Ser Arg Phe Lys Gly	
30 35 40	
aaa cac tct ttg gat agc gat gag gag gag gat gat gat ggg ggg	254
Lys His Ser Leu Asp Ser Asp Glu Glu Glu Asp Asp Asp Asp Gly Gly	
45 50 55	
tcc agc aaa tat gac atc ttg gcc tca gag gat gta gaa ggt cag gag	302
Ser Ser Lys Tyr Asp Ile Leu Ala Ser Glu Asp Val Glu Gly Gln Glu	
60 65 70 75	
gca gcc aca ctc ccc agc gag ggg ggt gtt cgg atc aca cnn ttt aac	350
Ala Ala Thr Leu Pro Ser Glu Gly Gly Val Arg Ile Thr Xaa Phe Asn	
80 85 90	
ctg cag gas gag atg gag gaa ggc cac ttt gat gcc ga	388
Leu Gln Xaa Glu Met Glu Glu Gly His Phe Asp Ala	
95 100	

<210> 1747
 <211> 258
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 105..257

<400> 1747

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atacccggaa acacgagtc aagctgcagc tggcagggat tgcgggggtgc cggccgtctg      60
agttttttta aaactgctcg ccgcgaagtc tgtctgcagc caaa atg tcc aac aga      116
                                   Met Ser Asn Arg
                                   1
aac aac aac aag ctt ccc agc aac ctg ccg cag tta cag aat cta atc      164
Asn Asn Asn Lys Leu Pro Ser Asn Leu Pro Gln Leu Gln Asn Leu Ile
5                               10                               15                               20
aag cga gac ccg ccg gcc tac atc gag gag ttt cta cag cag tat aat      212
Lys Arg Asp Pro Pro Ala Tyr Ile Glu Glu Phe Leu Gln Gln Tyr Asn
                               25                               30                               35
cac tac aaa tcc aat gtg gag att ttc aaa ttg caa cca aat aaa c      258
His Tyr Lys Ser Asn Val Glu Ile Phe Lys Leu Gln Pro Asn Lys
                               40                               45                               50

```

<210> 1748

<211> 397

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 183..395

<400> 1748

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agtcagttcc tttccgcttt gtaaaatgct gctgacagat ttagcagtta actagctcac      60
cactgctctt gcctccaagc tgccttttag actgaatagc ttttcttggt agccctactt      120
taacatttct tttgaagtgg ttgtctgctt gaagagggaa acacgtcatg aaactgtaat      180
gc atg aac aga act cag gag ttg tct ggc cag ctt agt gct gcc act      227
  Met Asn Arg Thr Gln Glu Leu Ser Gly Gln Leu Ser Ala Ala Thr
    1                5                10                15
ggt gac atg cca act tac cag atc cga gct cct act gct gct ttg cca      275
Gly Asp Met Pro Thr Tyr Gln Ile Arg Ala Pro Thr Ala Ala Leu Pro
                20                25                30
cag gga gtg gtg atg gct gca tcg ccc gga agt ttg cac agt ccc cag      323
Gln Gly Val Val Met Ala Ala Ser Pro Gly Ser Leu His Ser Pro Gln
                35                40                45
cag ctg gca gaa gaa gca aca cgc aaa cga gag ctg agg cta atg aaa      371
Gln Leu Ala Glu Glu Ala Thr Arg Lys Arg Glu Leu Arg Leu Met Lys
                50                55                60
aac agg gaa gct gcc aaa gaa ggt cg      397
Asn Arg Glu Ala Ala Lys Glu Gly
    65                70

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<210> 1749

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 127..468

<400> 1749

aatgcggtcg	ggagggcg	ctcggtgtg	tgtggagggg	accctgtggt	tagcagcagc	60
tatcgacg	tcggatgttc	agagcagcag	aagccggcgt	cgtcggatgt	tgtgttgccc	120
gccacc	atg agc tac aca	ggc ttt gtc	cag gga tct	gaa acc act	ttg	168
	Met Ser Tyr Thr	Gly Phe Val	Gln Gly Ser	Glu Thr Thr	Leu	
	1	5	10			
cag tcg	aca tac tcg	gat acc agc	gct cag ccc	acc tgt gat	tat gga	216
Gln Ser	Thr Tyr Ser	Asp Thr Ser	Ala Gln Pro	Thr Cys Asp	Tyr Gly	
15	20	25	30			
tat gga	act tgg aac	tct ggg aca	aat aga ggc	tac gag ggc	tat ggc	264
Tyr Gly	Thr Trp Asn	Ser Gly Thr	Asn Arg Gly	Tyr Glu Gly	Tyr Gly	
	35	40	45			
tat ggc	tat ggc tat	ggc cag gat	aac acc acc	aac tat gga	att aac	312
Tyr Gly	Tyr Gly Tyr	Gly Gln Asp	Asn Thr Thr	Asn Tyr Gly	Ile Asn	
	50	55	60			
cag cgc	tta gat atg	gtg ccg cat	ttg gag aca	gac atg atg	caa gga	360
Gln Arg	Leu Asp Met	Val Pro His	Leu Glu Thr	Asp Met Met	Gln Gly	
	65	70	75			
ggc gtg	tac ggc tca	ggt gga gaa	agg tat gac	tct tat gag	tcc tgc	408
Gly Val	Tyr Gly Ser	Gly Gly Glu	Arg Tyr Asp	Ser Tyr Glu	Ser Cys	
	80	85	90			
gac tcg	agg gcc gtc	ctg agt gag	cgc gac ctg	tac cgg tca	ggc tat	456
Asp Ser	Arg Ala Val	Leu Ser Glu	Arg Asp Leu	Tyr Arg Ser	Gly Tyr	
	95	100	105		110	
gac tac	agc gag					468
Asp Tyr	Ser Glu					

<210> 1750

<211> 570

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 127..570

<400> 1750

aatgcggtcg	ggagggcg	ctcggtgtg	tgtggagggg	accctgtggt	tagcagcagc	60
tatcgacg	tcggatgttc	agagcagcag	aagccggcgt	cgtcggatgt	tgtgttgccc	120
gccacc	atg agc tac aca	ggc ttt gtc	cag gga tct	gaa acc act	ttg	168
	Met Ser Tyr Thr	Gly Phe Val	Gln Gly Ser	Glu Thr Thr	Leu	
	1	5	10			
cag tcg	aca tac tcg	gat acc agc	gct cag ccc	acc tgt gat	tat gga	216
Gln Ser	Thr Tyr Ser	Asp Thr Ser	Ala Gln Pro	Thr Cys Asp	Tyr Gly	
15	20	25	30			
tat gga	act tgg aac	tct ggg aca	aat aga ggc	tac gag ggc	tat ggc	264
Tyr Gly	Thr Trp Asn	Ser Gly Thr	Asn Arg Gly	Tyr Glu Gly	Tyr Gly	
	35	40	45			
tat ggc	tat ggc tat	ggc cag gat	aac acc acc	aac tat ggg	tat ggt	312
Tyr Gly	Tyr Gly Tyr	Gly Gln Asp	Asn Thr Thr	Asn Tyr Gly	Tyr Gly	

	50		55		60	
atg gcc act tca cac tct tgg gaa atg cct agc tct gac aca aat gca						360
Met Ala Thr Ser His Ser Trp Glu Met Pro Ser Ser Asp Thr Asn Ala						
	65		70		75	
aac act ast gcc tcg ggt agc gcc agt gcc gat tcc gtt tta tcc aga						408
Asn Thr Xaa Ala Ser Gly Ser Ala Ser Ala Asp Ser Val Leu Ser Arg						
	80		85		90	
att aac cag cgc tta gat atg gtg ccg cat ttg gag aca gac atg atg						456
Ile Asn Gln Arg Leu Asp Met Val Pro His Leu Glu Thr Asp Met Met						
	95		100		105	110
caa gga ggc gtg tac ggc tca ggt gga gaa agg tat gac tct tat gag						504
Gln Gly Gly Val Tyr Gly Ser Gly Gly Glu Arg Tyr Asp Ser Tyr Glu						
	115		120		125	
tcc tgc gac tcg agg gcc gtc ctg agt gag cgc gac ctg tac cgg tca						552
Ser Cys Asp Ser Arg Ala Val Leu Ser Glu Arg Asp Leu Tyr Arg Ser						
	130		135		140	
ggc tat gac tac agc gag						570
Gly Tyr Asp Tyr Ser Glu						
	145					

<210> 1751
 <211> 309
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 139..309

<400> 1751	
agagtgcatt ccggaacccg gggcgcgggcg cactgcgagg cggccggact ccgctcagtt	60
tccggtgcgg cgaacaccaa agtccgggaa cttaagcatt ttcggtttct agggttgtta	120
cgaagctgca ggagcgag atg gag gtg gac gca ccg ggt gtt gat ggt cga	171
Met Glu Val Asp Ala Pro Gly Val Asp Gly Arg	
1 5 10	
gat ggt ctc cgg gag cgg cga ggc ttt agc gag gga ggg agg cag aac	219
Asp Gly Leu Arg Glu Arg Arg Gly Phe Ser Glu Gly Gly Arg Gln Asn	
15 20 25	
ttc gat gtg agg cct cag tct ggg gca aat ggg ctt ccc aaa cac tcc	267
Phe Asp Val Arg Pro Gln Ser Gly Ala Asn Gly Leu Pro Lys His Ser	
30 35 40	
tac tgg ttg gac ctc tgg ctt ttc atc cty cag atc agc acc	309
Tyr Trp Leu Asp Leu Trp Leu Phe Ile Leu Gln Ile Ser Thr	
45 50 55	

<210> 1752
 <211> 375
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 37..375

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<210> 1753
<211> 491
<212> DNA
<213> Homo sapiens
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<400> 1753

1171

Gly Gly Ala Gly His Trp Pro Leu Asn Tyr Ala Arg Ala His
50 55

<210> 1754
<211> 472
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 309..470

<400> 1754
atacaaccgt ggagccaggg caagggagag acagaaggag caagtgaccc agggcagaca 60
aacacttggg gatacttggg gctgagttg agcaagactc cctaacctgt gtctggacaa 120
gtctgatgtc ctgtgtggcc caagaagaac tgaccccggtg tctggagctc ccaccgttat 180
tgcacccctg ctgtggctca cctgctgctg tctccaggag cccctgagaa satttgcttc 240
ctctcccttg ctaagctcca ggtcctgaga ttgaattagg ggctggagct cactgcactc 300
cagcagtc atg gga ccc agg ata ggg cca gcg ggt gag gta mcc cag gta 350
Met Gly Pro Arg Ile Gly Pro Ala Gly Glu Val Xaa Gln Val
1 5 10
cca gac aag gaa acc aaa gcc acn ntg ggc aca gaa aac aca ctg gag 398
Pro Asp Lys Glu Thr Lys Ala Thr Xaa Gly Thr Glu Asn Thr Leu Glu
15 20 25 30
gca aag cca gcc cag acc ctc agg acg tgc ggc aag tgt gtt cca tac 446
Ala Lys Pro Ala Gln Thr Leu Arg Thr Cys Gly Lys Cys Val Pro Tyr
35 40 45
atc aag ctg ttc gtt ctg tgc aca gc 472
Ile Lys Leu Phe Val Leu Cys Thr
50

<210> 1755
<211> 273
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 76..273

<400> 1755
aagcaccctt cagcagttcc acacactcgc ttctggaacg tctgagatta tcaataagct 60
cctagtccag acgcc atg ggt cat ttc aca gag gag gac aag gct act atc 111
Met Gly His Phe Thr Glu Glu Asp Lys Ala Thr Ile
1 5 10
aca agc ctg tgg ggc aag gtg aat gtg gaa gat gct gga gga gtt cag 159
Thr Ser Leu Trp Gly Lys Val Asn Val Glu Asp Ala Gly Gly Val Gln
15 20 25
gca gtg aag gga tta atg cag cca tac cat cca cta tgc aca caa aat 207
Ala Val Lys Gly Leu Met Gln Pro Tyr His Pro Leu Cys Thr Gln Asn
30 35 40
caa cga agt ctt tat ggg tta aca gct gag cat ggg caa agg gga gca 255

Gln Arg Ser Leu Tyr Gly Leu Thr Ala Glu His Gly Gln Arg Gly Ala
 45 50 55 60
 gag gcc aaa gca cta agg
 Glu Ala Lys Ala Leu Arg
 65

273

<210> 1756
 <211> 454
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 92..454

<400> 1756
 agggctgggc ataaaagtca gggcagagcc atctattgct tacatttgct tctgacacaa 60
 ctgtgttcac tagcaacctc aaacagacac c atg gtg cac ctg act cct gag 112
 Met Val His Leu Thr Pro Glu
 1 5
 gag aag tct gcc gtt act gcc ctg tgg ggc aag gtg aac gtg gat gaa 160
 Glu Lys Ser Ala Val Thr Ala Leu Trp Gly Lys Val Asn Val Asp Glu
 10 15 20
 gtt ggt ggt gag gcc ctg ggc agg ctg ctg gtg gtc tac cct tgg acc 208
 Val Gly Gly Glu Ala Leu Gly Arg Leu Leu Val Val Tyr Pro Trp Thr
 25 30 35
 cag agg ttc ttt gag tcc ttt ggg gat ctg tcc act cct gat gct gtt 256
 Gln Arg Phe Phe Glu Ser Phe Gly Asp Leu Ser Thr Pro Asp Ala Val
 40 45 50 55
 atg ggc aac cct aag gtg aag gct cat ggc aag aaa gtg ctc ggt gcc 304
 Met Gly Asn Pro Lys Val Lys Ala His Gly Lys Lys Val Leu Gly Ala
 60 65 70
 ttt agt gat ggc ctg gct cac ctg gac aac ctc aag ggc acc ttt gcc 352
 Phe Ser Asp Gly Leu Ala His Leu Asp Asn Leu Lys Gly Thr Phe Ala
 75 80 85
 aca ctg agt gag ctg cac tgt gac aag ctg cac gtg gat cct gag aac 400
 Thr Leu Ser Glu Leu His Cys Asp Lys Leu His Val Asp Pro Glu Asn
 90 95 100
 ttc agg ctc ctg ggc aac gtg ctg gtc tgt gtg ctg gcc cat cac ttt 448
 Phe Arg Leu Leu Gly Asn Val Leu Val Cys Val Leu Ala His His Phe
 105 110 115
 ggc aaa 454
 Gly Lys
 120

<210> 1757
 <211> 241
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 77..241

<400> 1757
ctatatctta actgtagccc ttcctgtgtt cctggttatc ctcttctgct gttctggaaa 60
gaaacagacc agtggt atg gag tat aag aaa act gat gca cct caa ccg gat 112
Met Glu Tyr Lys Lys Thr Asp Ala Pro Gln Pro Asp
1 5 10
gtg aag gaa gag gaa gaa gag aag gaa gag gaa aag gac aag gga gat 160
Val Lys Glu Glu Glu Glu Lys Glu Glu Glu Lys Asp Lys Gly Asp
15 20 25
gag gag gag gaa gga gaa gag aaa ctt gaa gag aaa cag aaa agt gat 208
Glu Glu Glu Glu Gly Glu Glu Lys Leu Glu Glu Lys Gln Lys Ser Asp
30 35 40
gct gaa gaa gat ggt ggc act gtc agt caa gag 241
Ala Glu Glu Asp Gly Gly Thr Val Ser Gln Glu
45 50 55

<210> 1758
<211> 225
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 60..224

<400> 1758
attcggatcat ctacaagaag ttccaacttg gctgtgctat aggccacaat gaaacagca 59
atg gag agt gaa gct ctc gtg gga ctc ccc agc caa gga ctc aac agc 107
Met Glu Ser Glu Ala Leu Val Gly Leu Pro Ser Gln Gly Leu Asn Ser
1 5 10 15
agc tgt gag gcc cag atg ttc aca gtt gac tca cag atg tcc tac aca 155
Ser Cys Glu Ala Gln Met Phe Thr Val Asp Ser Gln Met Ser Tyr Thr
20 25 30
gtg ccc att atg gct ttt gct ttt gtc tgc cac cct gag gtg ctg ccc 203
Val Pro Ile Met Ala Phe Ala Phe Val Cys His Pro Glu Val Leu Pro
35 40 45
atc tat acg gag ctc tgc cgg c 225
Ile Tyr Thr Glu Leu Cys Arg
50 55

<210> 1759
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 66..395

<400> 1759
gagcctgggt agcggcgaga gggccgggag aaccgttcgc ggaggaaagg cgaactagt 60

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ttggg atg gcc acc aac tgg ggg agc ctc ttg cag gat aaa cag cag cta      110
    Met Ala Thr Asn Trp Gly Ser Leu Leu Gln Asp Lys Gln Gln Leu
      1             5             10             15
gag gag ctg gca cgg cag gcc gtg gac cgg gcc ctg gct gag gga gta      158
Glu Glu Leu Ala Arg Gln Ala Val Asp Arg Ala Leu Ala Glu Gly Val
      20             25             30
ttg ctg agg acc tca cag gag ccc act tcc tcg gag gtg gtg agc tat      206
Leu Leu Arg Thr Ser Gln Glu Pro Thr Ser Ser Glu Val Val Ser Tyr
      35             40             45
gcc cca ttc acg ctc ttc ccc tca ctg gtc ccc agt gcc ctg ctg gag      254
Ala Pro Phe Thr Leu Phe Pro Ser Leu Val Pro Ser Ala Leu Leu Glu
      50             55             60
caa gcc tat gct gtg cag atg gac ttc aac ctg cta gtg gat gct gtc      302
Gln Ala Tyr Ala Val Gln Met Asp Phe Asn Leu Leu Val Asp Ala Val
      65             70             75
agc cag aac gct gcc ttc ctg gag caa act ctt tcc agc acc atc aaa      350
Ser Gln Asn Ala Ala Phe Leu Glu Gln Thr Leu Ser Ser Thr Ile Lys
      80             85             90             95
cag gat gac ttt acc gct cgt ctc ttt gac atc cac aag caa gtc c      396
Gln Asp Asp Phe Thr Ala Arg Leu Phe Asp Ile His Lys Gln Val
      100             105             110

<210> 1760
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 213..434

<400> 1760
agcagtcagc ccagggctct cggatgcagg gagcctgggc ccaaacagca gcttccggag      60
tcggaaggag ctgaggaaga agacagactg aaggagcttg cgacttttcc gcctcggcaa      120
ccggaccagc cagcaagcag gacgggcggc gctctgctac tgggtccggtt aagccagagt      180
agcccaagcc ctgaagtcac tgctcatccg ga atg gaa atc ccg ccg acc aac      233
                                Met Glu Ile Pro Pro Thr Asn
                                  1             5
tac cca gcc tcc agg gcg gcc ttg gtg gca cag aac tac atc aac tac      281
Tyr Pro Ala Ser Arg Ala Ala Leu Val Ala Gln Asn Tyr Ile Asn Tyr
      10             15             20
cag cag ggg acc ccg cac agg gtg ttt gag gtg cag aag gtc aaa caa      329
Gln Gln Gly Thr Pro His Arg Val Phe Glu Val Gln Lys Val Lys Gln
      25             30             35
gcc agc atg gag gat att cca gga aga ggr cat aag tat cac ctt aaa      377
Ala Ser Met Glu Asp Ile Pro Gly Arg Gly His Lys Tyr His Leu Lys
      40             45             50             55
ttt gct gtt gaa gaa att ata caa aaa caa gtt aag gtg aac tgc aca      425
Phe Ala Val Glu Glu Ile Ile Gln Lys Gln Val Lys Val Asn Cys Thr
      60             65             70
gct gaa gta
Ala Glu Val      434

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<210> 1761
 <211> 433
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 57..431

<400> 1761
 aacaccctgc agcgtttgaa atctgagggg aaaagactgt agtcagccct tagtgg atg 59
 Met
 1
 aga gcg cct atg ctc cag aaa cag cag gct ccc agg atg gac acc ccg 107
 Arg Ala Pro Met Leu Gln Lys Gln Gln Ala Pro Arg Met Asp Thr Pro
 5 10 15
 ccc cct gaa gaa cgc tta gag aag caa aat gaa aaa ctg aac aac cag 155
 Pro Pro Glu Glu Arg Leu Glu Lys Gln Asn Glu Lys Leu Asn Asn Gln
 20 25 30
 gaa gag gag acg gag ttt aag gaa ctg gac ggt ctg agg gaa gcc ttg 203
 Glu Glu Glu Thr Glu Phe Lys Glu Leu Asp Gly Leu Arg Glu Ala Leu
 35 40 45
 gca aac ctc cgg gga ctg tca gag gag gag agg agc gag aag gct atg 251
 Ala Asn Leu Arg Gly Leu Ser Glu Glu Glu Arg Ser Glu Lys Ala Met
 50 55 60 65
 ctt cgc tcc cgc att gaa gag cag tcc cag ctc atc tgc atc ctg aag 299
 Leu Arg Ser Arg Ile Glu Glu Gln Ser Gln Leu Ile Cys Ile Leu Lys
 70 75 80
 cgg agg tca gat gag gcc ctg gag cgc tgc cag atc cta gag ctg ctc 347
 Arg Arg Ser Asp Glu Ala Leu Glu Arg Cys Gln Ile Leu Glu Leu Leu
 85 90 95
 aat gca gag ctg gag gag aag atg atg cag gag gct gag aag ctc aag 395
 Asn Ala Glu Leu Glu Glu Lys Met Met Gln Glu Ala Glu Lys Leu Lys
 100 105 110
 gcc cag ggt gag tnc agt cgg aaa ctw gag gaa cgc tt 433
 Ala Gln Gly Glu Xaa Ser Arg Lys Leu Glu Glu Arg
 115 120 125

<210> 1762
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 60..458

<400> 1762
 agagcaaggc gnaagtctgg aggacgctga ggggcggagg cgggagaggc gagctcgcg 59
 atg agt ggt ctc ggc agg ctc ttc ggg aag ggg aag aag gag aaa ggg 107
 Met Ser Gly Leu Gly Arg Leu Phe Gly Lys Gly Lys Lys Glu Lys Gly
 1 5 10 15

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cca acc cct gaa gaa gca ata cag aaa ctg aag gag aca gag aag ata      155
Pro Thr Pro Glu Glu Ala Ile Gln Lys Leu Lys Glu Thr Glu Lys Ile
      20      25      30
ctg atc aag aaa cag gaa ttt ttg gag cag aag att caa cag gag cta      203
Leu Ile Lys Lys Gln Glu Phe Leu Glu Gln Lys Ile Gln Gln Glu Leu
      35      40      45
caa aca gcc aag aag tat ggg acc aag aat aag aga gct gcc cta cag      251
Gln Thr Ala Lys Lys Tyr Gly Thr Lys Asn Lys Arg Ala Ala Leu Gln
      50      55      60
gct ttg cgg agg aag aaa aga ttc gaa cag cag ctg gca caa act gac      299
Ala Leu Arg Arg Lys Lys Arg Phe Glu Gln Gln Leu Ala Gln Thr Asp
      65      70      75      80
ggg aca tta tcc acc ctg gag ttt cag cgt gag gcc att gag aat gcc      347
Gly Thr Leu Ser Thr Leu Glu Phe Gln Arg Glu Ala Ile Glu Asn Ala
      85      90      95
act acc aat gca gaa gtc ctt cgt acc atg gag ctt gct gcc caa agc      395
Thr Thr Asn Ala Glu Val Leu Arg Thr Met Glu Leu Ala Ala Gln Ser
      100      105      110
atg aag aag gcc tac cag gac atg gac att gac aag gta gat gaa ctg      443
Met Lys Lys Ala Tyr Gln Asp Met Asp Ile Asp Lys Val Asp Glu Leu
      115      120      125
atg act gac atc acg
Met Thr Asp Ile Thr
      130

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<210> 1763
 <211> 247
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 50..247

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<400> 1763
agatctttcg tggttctgtc agggagaccc ttaggcactc cggactaag atg gcg gcg      58
                                     Met Ala Ala
                                     1
acg gcc agg cgg ggc tgg gga gct gcg gct gtt gcc gcc ggg ctg cgc      106
Thr Ala Arg Arg Gly Trp Gly Ala Ala Ala Val Ala Ala Gly Leu Arg
      5      10      15
agg cgg ttc tgt cat aag ttg aag aat cca tac acc att aag aaa cag      154
Arg Arg Phe Cys His Lys Leu Lys Asn Pro Tyr Thr Ile Lys Lys Gln
      20      25      30      35
cct ctg cat cag ttt gta caa aga cca ctt ttc cca cta cct gca gcc      202
Pro Leu His Gln Phe Val Gln Arg Pro Leu Phe Pro Leu Pro Ala Ala
      40      45      50
ttt tat cac cca gtg aga tac atg ttt att caa aca caa gat acc      247
Phe Tyr His Pro Val Arg Tyr Met Phe Ile Gln Thr Gln Asp Thr
      55      60      65

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<210> 1764
 <211> 320

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 99..320

<400> 1764
actgccactc ccgctctctc agcgccgccg tcgccaccgc caccgccacc gccactacca 60
ccgtctgagt ctgcagtccc gaggagatcc cagccatc atg tcc ata gag aag atc 116
Met Ser Ile Glu Lys Ile
1 5
tgg gcc cgg gag atc ctg gac tcc cgc ggg aac ccc aca gtg gag gtg 164
Trp Ala Arg Glu Ile Leu Asp Ser Arg Gly Asn Pro Thr Val Glu Val
10 15 20
gat ctg tat act gcc aaa ggt ctt ttc cgg gct gca gtg ccc agt gga 212
Asp Leu Tyr Thr Ala Lys Gly Leu Phe Arg Ala Ala Val Pro Ser Gly
25 30 35
gcc tct acg ggc atc tat gag gcc ctg gag ctg agg gat gga gac aaa 260
Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu Leu Arg Asp Gly Asp Lys
40 45 50
cag cgt tac tta ggc aaa ggt gtc ctg aag gca gtg gac cac atc aac 308
Gln Arg Tyr Leu Gly Lys Gly Val Leu Lys Ala Val Asp His Ile Asn
55 60 65 70
tcc acc atc gcg 320
Ser Thr Ile Ala

<210> 1765
<211> 253
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 34..252

<400> 1765
agttcctccg cgtctactgc gagtcaggcc gtg atg gcg gac gcc tgg gaa gag 54
Met Ala Asp Ala Trp Glu Glu
1 5
att agg cgg ttg gcg gcc gac ttc cag cgg gcg cag ttc gcc gag gcc 102
Ile Arg Arg Leu Ala Ala Asp Phe Gln Arg Ala Gln Phe Ala Glu Ala
10 15 20
acg cag agg ttg tcc gag cgg aac tgc att gag att gtt aat aaa ttg 150
Thr Gln Arg Leu Ser Glu Arg Asn Cys Ile Glu Ile Val Asn Lys Leu
25 30 35
att gct cag aaa cag cta gaa gta gtt cat aca ctg gat gga aag gaa 198
Ile Ala Gln Lys Gln Leu Glu Val Val His Thr Leu Asp Gly Lys Glu
40 45 50 55
tat att act cca gcc caa att agt aaa gaa atg aga gat gag cta cat 246
Tyr Ile Thr Pro Ala Gln Ile Ser Lys Glu Met Arg Asp Glu Leu His
60 65 70

gtc cga g
Val Arg

253

<210> 1766
<211> 468
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 49..468

<400> 1766
tttttccggt cttactcacg ttgcggcctt cctcgcgtca cagccggg atg aag ccg 57
Met Lys Pro
1
atc cta ctg cag ggc cat gag cgg tcc att acg cag att aag tat aac 105
Ile Leu Leu Gln Gly His Glu Arg Ser Ile Thr Gln Ile Lys Tyr Asn
5 10 15
cgc gaa gga gac ctc ctc ttt act gtg gcc aag gac cct atc gtc aat 153
Arg Glu Gly Asp Leu Leu Phe Thr Val Ala Lys Asp Pro Ile Val Asn
20 25 30 35
gta tgg tac tct gtg aat ggt gag agg ctg ggc acc tac atg ggc cat 201
Val Trp Tyr Ser Val Asn Gly Glu Arg Leu Gly Thr Tyr Met Gly His
40 45 50
acc gga gct gtg tgg tgt gtg gac gct gac tgg gac acc aag cat gtc 249
Thr Gly Ala Val Trp Cys Val Asp Ala Asp Trp Asp Thr Lys His Val
55 60 65
ctc act ggc tca gct gac aac agc tgt cgt ctc tgg gac tgt gaa aca 297
Leu Thr Gly Ser Ala Asp Asn Ser Cys Arg Leu Trp Asp Cys Glu Thr
70 75 80
gga aag cag ctg gcc ctt ctc aag acc aat tcg gct gtc cgg acc tgc 345
Gly Lys Gln Leu Ala Leu Leu Lys Thr Asn Ser Ala Val Arg Thr Cys
85 90 95
ggt ttt gac ttt ggg ggc aac atc atc atg ttc tcc acg gac aag cag 393
Gly Phe Asp Phe Gly Gly Asn Ile Ile Met Phe Ser Thr Asp Lys Gln
100 105 110 115
atg ggc tac cag tgc ttt gtg agc ttt ttt gac ctg cgg gat ccg agc 441
Met Gly Tyr Gln Cys Phe Val Ser Phe Phe Asp Leu Arg Asp Pro Ser
120 125 130
cag att gac aac aat gag ccc tac atg 468
Gln Ile Asp Asn Asn Glu Pro Tyr Met
135 140

<210> 1767
<211> 350
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 109..348

<400> 1767

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aacacagctc tgtcctgctc tgtgtctttc cctgctgctc tcagggtcccc tgcaggcctt      60
ggcccccttc ctcatctgta gacacacttg agtagcccgag gcacagcc atg gga gat      117
                                   Met Gly Asp
                                   1
tcg gag atg gca gtc ttt ggg gct gcc gcc ccc tac ctg cgc aag tca      165
Ser Glu Met Ala Val Phe Gly Ala Ala Ala Pro Tyr Leu Arg Lys Ser
   5                10                15
gag aag gag cgg cta gaa gcg cag acc agg cct ttt gac ctc aag aag      213
Glu Lys Glu Arg Leu Glu Ala Gln Thr Arg Pro Phe Asp Leu Lys Lys
  20                25                30                35
gat gtc ttc gtg cct gat gac aaa cag gag ttt gtc aag gcc aag atc      261
Asp Val Phe Val Pro Asp Asp Lys Gln Glu Phe Val Lys Ala Lys Ile
                40                45                50
gtg tct cga gag ggt ggc aaa gtc act gcc gag act gag tat ggc aag      309
Val Ser Arg Glu Gly Gly Lys Val Thr Ala Glu Thr Glu Tyr Gly Lys
                55                60                65
aca gtg acc gtg aag gag gac cag gtg atg cag cag aac cc      350
Thr Val Thr Val Lys Glu Asp Gln Val Met Gln Gln Asn
   70                75                80

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<210> 1768

<211> 230

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 77..229

<400> 1768

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acagctctgt cctgctctgt gtctttccct gctgctctca ggtccccctgc agtccacggc      60
tgtggagcag attggc atg ttc ttg ggg aag gtg cag ggt cag gat aaa cat      112
                                   Met Phe Leu Gly Lys Val Gln Gly Gln Asp Lys His
                                   1                5                10
gaa gaa tat ttt gct gag aac ttc ggc ggc cca gaa ggg gag ttc cac      160
Glu Glu Tyr Phe Ala Glu Asn Phe Gly Gly Pro Glu Gly Glu Phe His
   15                20                25
ttc tca gtc ccg cat gca gcc gga gcc tcc aca gac ttc tct tca gcc      208
Phe Ser Val Pro His Ala Ala Gly Ala Ser Thr Asp Phe Ser Ser Ala
   30                35                40
tcc gct ccc gac cag tca gcg c      230
Ser Ala Pro Asp Gln Ser Ala
  45                50

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<210> 1769

<211> 427

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 23..427

<400> 1769

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actgtgctct gcgagccgaa tc atg gat cac act gac aat gag tta caa ggc      52
                        Met Asp His Thr Asp Asn Glu Leu Gln Gly
                        1           5           10
act aat agt tct gga tcc ttg ggt ggt ctt gat gtt cgc aga cga att      100
Thr Asn Ser Ser Gly Ser Leu Gly Gly Leu Asp Val Arg Arg Arg Ile
                        15           20           25
cct ata aag ctc atc tcc aaa caa gca aac aaa gcg aaa cct gca ccg      148
Pro Ile Lys Leu Ile Ser Lys Gln Ala Asn Lys Ala Lys Pro Ala Pro
                        30           35           40
cga act caa aga act ata aac agg atg cct gca aag gct cca cct ggt      196
Arg Thr Gln Arg Thr Ile Asn Arg Met Pro Ala Lys Ala Pro Pro Gly
                        45           50           55
gat gaa gga ttt gat tat aat gaa gaa gaa cgg tat gac tgt aaa ggg      244
Asp Glu Gly Phe Asp Tyr Asn Glu Glu Glu Arg Tyr Asp Cys Lys Gly
                        60           65           70
ggg gag ctg ttt gca aat cag cga aga ttt cct gga cac ctt ttt tgg      292
Gly Glu Leu Phe Ala Asn Gln Arg Arg Phe Pro Gly His Leu Phe Trp
                        75           80           85           90
gac ttt cag ata aac atc tta ggt gaa aag gat gat aca cca gtt cat      340
Asp Phe Gln Ile Asn Ile Leu Gly Glu Lys Asp Asp Thr Pro Val His
                        95           100           105
ttc tgt gac aag tgt gga ttg cct att aaa atc tat ggg aga atg att      388
Phe Cys Asp Lys Cys Gly Leu Pro Ile Lys Ile Tyr Gly Arg Met Ile
                        110           115           120
cca tgc aag cat gtt ttt tgc tat gac tgt gct att tta      427
Pro Cys Lys His Val Phe Cys Tyr Asp Cys Ala Ile Leu
                        125           130           135
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<210> 1770

<211> 348

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 62..346

<400> 1770

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gagttcgctg ctgtmcmggt tctctctgag tcggtccaa ctgccagccc gggttggcgc      60
c atg tac gcc gtg tac aaa cag gcg cat ccg ccc acc ggt ctg gag ttc      109
Met Tyr Ala Val Tyr Lys Gln Ala His Pro Pro Thr Gly Leu Glu Phe
1           5           10           15
tcc atg tac tgc aac ttc ttc aac aac agc gag cgc aac ctg gta gtg      157
Ser Met Tyr Cys Asn Phe Phe Asn Asn Ser Glu Arg Asn Leu Val Val
                        20           25           30
gcc ggg acc tcg cag ctc tac gtg tac cgc ctc aac cgc gac gcc gag      205
Ala Gly Thr Ser Gln Leu Tyr Val Tyr Arg Leu Asn Arg Asp Ala Glu
                        35           40           45
gct ctg acc aag aat gac agg agc aca gag ggg aag gcc cac cgg gag      253
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Ala	Leu	Thr	Lys	Asn	Asp	Arg	Ser	Thr	Glu	Gly	Lys	Ala	His	Arg	Glu	
50						55					60					
aag	ctc	gag	ctt	gct	gcc	tcc	ttc	tcc	ttc	ttt	ggc	aac	gtc	atg	tcc	301
Lys	Leu	Glu	Leu	Ala	Ala	Ser	Phe	Ser	Phe	Phe	Gly	Asn	Val	Met	Ser	
65					70					75					80	
atg	gcc	agc	gtg	cag	ctg	gca	gga	gcc	aag	cgg	gat	gcc	ctg	ctc	ct	348
Met	Ala	Ser	Val	Gln	Leu	Ala	Gly	Ala	Lys	Arg	Asp	Ala	Leu	Leu		
				85					90					95		

<210> 1771
 <211> 391
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 33..389

<400> 1771																	
actcctgacc	ccggaaggac	tccgccttct	cc	atg	tca	gac	tgc	tgc	tca	gcg						53	
				Met	Ser	Asp	Cys	Cys	Ser	Ala							
				1			5										
cca	ggc	atc	agc	tgg	gaa	gct	ggc	gtg	ggc	agg	cca	gct	gta	cyt	ggc	101	
Pro	Gly	Ile	Ser	Trp	Glu	Ala	Gly	Val	Gly	Arg	Pro	Ala	Val	Xaa	Gly		
	10					15					20						
ctg	gag	ctc	cag	att	aga	aga	gga	gcc	atg	tca	gaa	gaa	aca	gta	agt	149	
Leu	Glu	Leu	Gln	Ile	Arg	Arg	Gly	Ala	Met	Ser	Glu	Glu	Thr	Val	Ser		
	25				30					35							
gaa	tca	cag	ttt	tcc	ttg	aag	aca	gca	gcg	cta	aga	gtg	ttt	gat	ctt	197	
Glu	Ser	Gln	Phe	Ser	Leu	Lys	Thr	Ala	Ala	Leu	Arg	Val	Phe	Asp	Leu		
	40				45				50					55			
cct	ctg	act	tgg	tgn	tat	tct	ctc	tcc	cag	atc	aaa	ttt	tct	ccg	ntg	245	
Pro	Leu	Thr	Trp	Xaa	Tyr	Ser	Leu	Ser	Gln	Ile	Lys	Phe	Ser	Pro	Xaa		
			60				65				70						
gct	aaa	aag	ttg	ttt	gtg	gta	act	gca	gtg	agt	gct	ata	tct	gta	att	293	
Ala	Lys	Lys	Leu	Phe	Val	Val	Thr	Ala	Val	Ser	Ala	Ile	Ser	Val	Ile		
		75				80							85				
ttt	ctg	gct	cat	cac	ttt	aaa	aga	aaa	cgt	gga	aag	aag	aaa	gga	aaa	341	
Phe	Leu	Ala	His	His	Phe	Lys	Arg	Lys	Arg	Gly	Lys	Lys	Lys	Gly	Lys		
	90				95						100						
ata	tta	cca	tgg	gaa	cca	gag	cac	ctc	ata	ctt	gaa	tac	act	aaa	aga	389	
Ile	Leu	Pro	Trp	Glu	Pro	Glu	His	Leu	Ile	Leu	Glu	Tyr	Thr	Lys	Arg		
	105				110						115						
gc																391	

<210> 1772
 <211> 442
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 110..442

<400> 1772

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actgctttat aagcaccagc tcaagaagga acctacagcc tcttggaag gaatctcact      60
aggggcttga ctgcgtgggt ctgtagcgct ttcactgtaa gaaagcaag atg cat ttt      118
                                   Met His Phe
                                   1
aga aac ttt aac tac agt ttt agc tcc ctg att gcc tgt gtg gca aac      166
Arg Asn Phe Asn Tyr Ser Phe Ser Ser Leu Ile Ala Cys Val Ala Asn
   5                10                15
agt gat atc ttc agc gaa agt gaa acc agg gcc aaa ttt gag tcc ctc      214
Ser Asp Ile Phe Ser Glu Ser Glu Thr Arg Ala Lys Phe Glu Ser Leu
  20                25                30                35
ttt agg acg tat gac aag gac atc acc ttt cag tat ttt aag agc ttc      262
Phe Arg Thr Tyr Asp Lys Asp Ile Thr Phe Gln Tyr Phe Lys Ser Phe
                40                45                50
aaa cga gtc aga ata aac ttc agc aac ccc ttc tcc gca gca gat gcc      310
Lys Arg Val Arg Ile Asn Phe Ser Asn Pro Phe Ser Ala Ala Asp Ala
                55                60                65
agg ctc cag ctg cat aag act gag ttt ctg gga aag gaa atg aag tta      358
Arg Leu Gln Leu His Lys Thr Glu Phe Leu Gly Lys Glu Met Lys Leu
   70                75                80
tat ttt gct cag acc tta cac ata gga agc tca cac ctg gct ccg cca      406
Tyr Phe Ala Gln Thr Leu His Ile Gly Ser Ser His Leu Ala Pro Pro
   85                90                95
aat cca gac aag cag ttt ctg atc tcc cct ccc gcc      442
Asn Pro Asp Lys Gln Phe Leu Ile Ser Pro Pro Ala
  100                105                110

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<210> 1773

<211> 448

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 251..448

<400> 1773

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aacaatcaya tagaacgcag accagcccaa gctgacagct tgatatgcct tcttctgctg      60
cctgggttttg ggggctgtat gacgtactgg tcggtagtaa agaktaatat gtaagaaatg      120
tggagctagg atcaagtcac actccacagc ctgcctggca aactatgttt tacttctgac      180
tttgctctct cgctgagaac attaattctgt caagctggcg ggctcctttg atagcaactt      240
tcccagggggc atg atg tgg caa tgc cac ctc tca gcc cag gac tac cgc      289
                                   Met Met Trp Gln Cys His Leu Ser Ala Gln Asp Tyr Arg
                                   1                5                10
tat tac ccc gtg gac ggc tac tcc ctg ctt aaa cgc ttc cct ctt cat      337
Tyr Tyr Pro Val Asp Gly Tyr Ser Leu Leu Lys Arg Phe Pro Leu His
   15                20                25
cct ctt aca gga ccc aga tgc cct gtc caa aca gtg gga caa tgg ttg      385
Pro Leu Thr Gly Pro Arg Cys Pro Val Gln Thr Val Gly Gln Trp Leu
   30                35                40                45
gaa agc att ggg cta cct cag tac gag aac cac ctg atg gct aat gga      433

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Glu Ser Ile Gly Leu Pro Gln Tyr Glu Asn His Leu Met Ala Asn Gly
 50 55 60

ttt gac aat gtg cag
 Phe Asp Asn Val Gln
 65

448

<210> 1774
 <211> 435
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 60..434

<400> 1774
 gttttcgcgc gcttcgcgtc tctggccggg cttgggctgc gtggagaata ctttttgcg 59
 atg cct act gga gac ttt gat tgc aag ccc agt tgg gcc gac cag gtg 107
 Met Pro Thr Gly Asp Phe Asp Ser Lys Pro Ser Trp Ala Asp Gln Val
 1 5 10 15
 gag gag gag ggg gag gac gac aaa tgt gtc acc agc gag ctc ctc aag 155
 Glu Glu Glu Gly Glu Asp Asp Lys Cys Val Thr Ser Glu Leu Leu Lys
 20 25 30
 ggg atc cct ctg gcc aca ggt gac acc agc cca gag cca gag cta ctg 203
 Gly Ile Pro Leu Ala Thr Gly Asp Thr Ser Pro Glu Pro Glu Leu Leu
 35 40 45
 ccg gga gct cca ctg ccg cct ccc aag gag gtc atc aac gga aac ata 251
 Pro Gly Ala Pro Leu Pro Pro Pro Lys Glu Val Ile Asn Gly Asn Ile
 50 55 60
 aag aca gtg aca gag tac aag ata gat gag gat ggc aag aag ttc aag 299
 Lys Thr Val Thr Glu Tyr Lys Ile Asp Glu Asp Gly Lys Lys Phe Lys
 65 70 75 80
 att gtc cgc acc ttc agg att gag acc cgg aag gct tca aag gct gtc 347
 Ile Val Arg Thr Phe Arg Ile Glu Thr Arg Lys Ala Ser Lys Ala Val
 85 90 95
 gca agg agg aag aac tgg aag aag ttc ggg act cag agt ttg rcc ccc 395
 Ala Arg Arg Lys Asn Trp Lys Lys Phe Gly Thr Gln Ser Leu Xaa Pro
 100 105 110
 cgg rcc caa tgt ggc cam cac cac tgt cag tgr cga tgt c 435
 Arg Xaa Gln Cys Gly Xaa His His Cys Gln Xaa Arg Cys
 115 120 125

<210> 1775
 <211> 480
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 113..478

<400> 1775

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gtgccanccg ggtctctcgc gcgassattt agtctgaggc gaasttcgga gcggccggta      60
ctgttgaaag cgacaagtgg aggcgcgcgct ctagcggccg ggactctgaa ct atg gcg      118
                                   Met Ala
                                   1
ata atg aag gaa gaa aac aca gga gcc gga gca gaa gca aag aga acc      166
Ile Met Lys Glu Glu Asn Thr Gly Ala Gly Ala Glu Ala Lys Arg Thr
      5      10      15
aac ttc ttc tta aaa cag gga aga aga cat gaa tcc arr gat aaa tcc      214
Asn Phe Phe Leu Lys Gln Gly Arg Arg His Glu Ser Xaa Asp Lys Ser
      20      25      30
tct aag aaa cat aag tct gag gaa cat aat gac aaa gaa wnn tct tct      262
Ser Lys Lys His Lys Ser Glu Glu His Asn Asp Lys Glu Xaa Ser Ser
      35      40      45      50
gat aaa gga aga gag cga cta aat tca tct gaa aat ggt gag gac agg      310
Asp Lys Gly Arg Glu Arg Leu Asn Ser Ser Glu Asn Gly Glu Asp Arg
      55      60      65
cac aaa cgc aaa gaa aga aag tca tca aga ggc aga agt cac tca aga      358
His Lys Arg Lys Glu Arg Lys Ser Ser Arg Gly Arg Ser His Ser Arg
      70      75      80
tct agg tct cgt gaa aga cgc cat cgt agt aga agc agg gag cgg aag      406
Ser Arg Ser Arg Glu Arg Arg His Arg Ser Arg Ser Arg Glu Arg Lys
      85      90      95
aag tct cga tcc agg agt agg gag cgg aag aaa tcg aga tcc aga agc      454
Lys Ser Arg Ser Arg Ser Arg Glu Arg Lys Lys Ser Arg Ser Arg Ser
      100      105      110
aga gag agg aag aaa tcg aga tcc ag
Arg Glu Arg Lys Lys Ser Arg Ser
115      120

<210> 1776
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 3..215

<400> 1776
gg atg tgt gtg gtg gcg gcg gcc gaa gag ctt gtg tgc gga stg aga      47
Met Cys Val Val Ala Ala Ala Glu Glu Leu Val Cys Gly Xaa Arg
      1      5      10      15
ggc cta tgg atg agg agg acg cgg cgg ccc cgg ttt gtt ctc atg aac      95
Gly Leu Trp Met Arg Arg Thr Arg Arg Pro Arg Phe Val Leu Met Asn
      20      25      30
aag atg gat gac ctc aac ctg cac tac cgg ttt ctg aat tgg cgc cgg      143
Lys Met Asp Asp Leu Asn Leu His Tyr Arg Phe Leu Asn Trp Arg Arg
      35      40      45
cgg atc cgg gag att cga gag gtc cga gct ttc cga tat cag gag agg      191
Arg Ile Arg Glu Ile Arg Glu Val Arg Ala Phe Arg Tyr Gln Glu Arg
      50      55      60
ttc aaa cat atc ctt gta gat gga g
Phe Lys His Ile Leu Val Asp Gly      216

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65

70

<210> 1777
 <211> 285
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 115..285

<400> 1777
 acatcctgtc tctgtgtgtg gagctggctg gaatctctca gcctcacctg ccagacaaca 60
 cccctcctt cctcacctg tctcctgcat tctcctgaaa ccttcacca caca atg 117
 Met
 1
 cct ccc aac ctc act ggc tac tac cgc ttt gtc tcg cag aag aac atg 165
 Pro Pro Asn Leu Thr Gly Tyr Tyr Arg Phe Val Ser Gln Lys Asn Met
 5 10 15
 gag gac tac ctg caa gcc cta aac atc agc ttg gct gtg cgg aag atc 213
 Glu Asp Tyr Leu Gln Ala Leu Asn Ile Ser Leu Ala Val Arg Lys Ile
 20 25 30
 gcg ctg ctg ctg aag ccg gac aag gag atc gaa cac cag ggc aac cac 261
 Ala Leu Leu Leu Lys Pro Asp Lys Glu Ile Glu His Gln Gly Asn His
 35 40 45
 atg acg gtg agg acg ctc agc acc 285
 Met Thr Val Arg Thr Leu Ser Thr
 50 55

<210> 1778
 <211> 563
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 138..563

<400> 1778
 atatcagctt atggcgccgg tcgctgattg gctggccgct ccagcctccc ggcccgttg 60
 ctggctgcc agctgctagg acagtttgca gagcagtggc gtgcggasgg cggcggaacca 120
 cctccagggg ctaagtg atg gat ctt gta ctc cgt gtt gca gat tac tat 170
 Met Asp Leu Val Leu Arg Val Ala Asp Tyr Tyr
 1 5 10
 ttt ttt aca cca tac gtg tat cca gcc aca tgg cca gaa gat gac atc 218
 Phe Phe Thr Pro Tyr Val Tyr Pro Ala Thr Trp Pro Glu Asp Asp Ile
 15 20 25
 ttc cga caa gct att agt ctt ctg att gta aca aat gtt ggt gct tac 266
 Phe Arg Gln Ala Ile Ser Leu Leu Ile Val Thr Asn Val Gly Ala Tyr
 30 35 40
 atc ctt tat ttc ttc tgt gca aca ctg agc tat tat ttt gtc ttc gat 314
 Ile Leu Tyr Phe Phe Cys Ala Thr Leu Ser Tyr Tyr Phe Val Phe Asp

45	50	55	
cat gca tta atg aaa	cat cca caa ttt tta	aag aat caa gtc cgt cga	362
His Ala Leu Met Lys	His Pro Gln Phe Leu	Lys Asn Gln Val Arg Arg	
60	65	70	75
gag att aag ttt act	gtc cag gca ttg cca	tgg ata agt att ctt act	410
Glu Ile Lys Phe Thr	Val Gln Ala Leu Pro	Trp Ile Ser Ile Leu Thr	
	80	85	90
gtt gca ctg ttc ttg	ctg gag ata aga	ggt tac agc aaa tta	458
Val Ala Leu Phe Leu	Leu Glu Ile Arg	Gly Tyr Ser Lys Leu	His Asp
	95	100	105
gac cta gga gag ttt	cca tat gga ttg ttt	gaa ctt gtc gtt agt ata	506
Asp Leu Gly Glu Phe	Pro Tyr Gly Leu Phe	Glu Leu Val Val Ser Ile	
	110	115	120
ata ctt tcc tct ttt	tca ctg aca tgt tca	tct act gga ttc aca	554
Ile Leu Ser Ser Phe	Ser Leu Thr Cys Ser	Ser Thr Gly Phe Thr	Glu
	125	130	135
gcc ttc atc			563
Ala Phe Ile			
140			

<210> 1779
 <211> 368
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 131..367

<400> 1779	
gtccccgcccggttctcttcttctctttttta actccttccc tctttgcgga ttctagaacg	60
gaacctttttt ttaattcttc ccagtagaaa cgtaggaaca atttcgtgaa cgcaatccgg	120
agtgcccaac atg gcg gcg gcc gta agg tgc atg ggt aga gcc ttg ata	169
Met Ala Ala Ala Val Arg Cys Met Gly Arg Ala Leu Ile	
1 5 10	
cat cat caa agg cat agc ctt tcc aag atg gtt tat cag aca tca ctt	217
His His Gln Arg His Ser Leu Ser Lys Met Val Tyr Gln Thr Ser Leu	
15 20 25	
tgt tct tgt tct gta aac atc cga gtg ccc aac aga cat ttt gct gct	265
Cys Ser Cys Ser Val Asn Ile Arg Val Pro Asn Arg His Phe Ala Ala	
30 35 40 45	
gct aca aag tct gca aag aaa aca aaa aaa ggt gct aaa gaa aaa aca	313
Ala Thr Lys Ser Ala Lys Lys Thr Lys Lys Gly Ala Lys Glu Lys Thr	
50 55 60	
cca gat gag aaa gat gaa ata gaa aaa ata aaa gca tat ccc tat	361
Pro Asp Glu Lys Lys Asp Glu Ile Glu Lys Ile Lys Ala Tyr Pro Tyr	
65 70 75	
atg gaa g	368
Met Glu	

<210> 1780
 <211> 316
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 164..316

<400> 1780

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gaaaagtgsn kccgttttga aatgcaagat ggcggcggcg tggcgctgag aggcgcggcg      60
gccctgcag  gagaagacag actgctgctt tggacctgtt ggtaatgatg gcctgagcta      120
aacatctaac tagaagggat acccttccat ttcaaagaac aga atg cta agg aag      175
                                   Met Leu Arg Lys
                                   1
ctg tgg caa ctg cct aaa acg ttg aag gag aat caa ttc ttc aac tca      223
Leu Trp Gln Leu Pro Lys Thr Leu Lys Glu Asn Gln Phe Phe Asn Ser
5                               10                               15                               20
aga tgt ctg att tac tgt gaa ttt gcc caa tct ttg atg aca ttg aaa      271
Arg Cys Leu Ile Tyr Cys Glu Phe Ala Gln Ser Leu Met Thr Leu Lys
                               25                               30                               35
acg ttt tgg ggc ata cac act caa aaa gca gga tcc aat acc caa      316
Thr Phe Trp Gly Ile His Thr Gln Lys Ala Gly Ser Asn Thr Gln
                               40                               45                               50

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<210> 1781

<211> 419

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 195..419

<400> 1781

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ggagtcgccg atcccgccgg aagcgccagg acaatgggga cccggggacga cgagtacgac      60
tacctattca aaggtactac cgtgggtgcag tgggcgcctt gctgggtgtac gacatcgcca      120
agcacctgac ctatgagaac gtggagcgct ggctgaagga gctgcgggac cacgcagaca      180
gcaacatcgt catc atg ctg gtg ggc aac aag agt gac ctg cgc cac ctg      230
                                   Met Leu Val Gly Asn Lys Ser Asp Leu Arg His Leu
                                   1                               5                               10
cgg gct gtg ccc act gac gag gcc cgc gcc ttc gca gaa aag aac aac      278
Arg Ala Val Pro Thr Asp Glu Ala Arg Ala Phe Ala Glu Lys Asn Asn
15                               20                               25
ntg tcc ttc atc gag acc tca gcc ttg gat tcc act aac gta gag gaa      326
Xaa Ser Phe Ile Glu Thr Ser Ala Leu Asp Ser Thr Asn Val Glu Glu
30                               35                               40
gca ttc aag gng atc ctc aca gag atc tac cgc atc gtg tca cag aaa      374
Ala Phe Lys Xaa Ile Leu Thr Glu Ile Tyr Arg Ile Val Ser Gln Lys
45                               50                               55                               60
cag atc gca gac cgc gct gcc cac gac gag tcc ccg ggg aac aac      419
Gln Ile Ala Asp Arg Ala Ala His Asp Glu Ser Pro Gly Asn Asn
65                               70                               75

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<210> 1782

09-06-2017

09-06-2017

09-06-2017

09-06-2017

<220>
 <221> CDS
 <222> 193..417

<400> 1783
 gtgaactaga ggtaaccttt atagataacg gactctgtta tctaattatt ataagaaaga 60
 atggcataag actacttcta attgctgcct ccattccatg aaacatctgt ctcaatttcc 120
 gctcttcctg gagcctcctt tggctctctt acaaatccat tccttctgaa tctgcntcat 180
 tctgacctac ag atg gaa acc att gaa ata gcc aca gtg atg cct tca ggg 231
 Met Glu Thr Ile Glu Ile Ala Thr Val Met Pro Ser Gly
 1 5 10
 aac aga gag ctc ctc act cca ccc cca cag cct gag aag gcc cag gaa 279
 Asn Arg Glu Leu Leu Thr Pro Pro Pro Gln Pro Glu Lys Ala Gln Glu
 15 20 25
 gag gaa gag gag gag gaa tct act ccc agg ctg att gat ggc tct tct 327
 Glu Glu Glu Glu Glu Glu Ser Thr Pro Arg Leu Ile Asp Gly Ser Ser
 30 35 40 45
 ccc cag gag cct gaa ttc aca ggg gtt ctg ggg cca cac aca aat gga 375
 Pro Gln Glu Pro Glu Phe Thr Gly Val Leu Gly Pro His Thr Asn Gly
 50 55 60
 ctt tcc aac ctg tmt ttt gtg tac ttg tat aag tac cac cgt 417
 Leu Ser Asn Leu Xaa Phe Val Tyr Leu Tyr Lys Tyr His Arg
 65 70 75

<210> 1784
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 115..300

<400> 1784
 aaagaagtcc tttcaagtct ctaggactgg actcttccta agcaagtccg gcgtgagatt 60
 caacattttg ggggtgaaaat cagcatagtt gaacctggct acttcagaac ggga atg 117
 Met
 1
 aca aac atg aca cag tcc tta gag cga atg aag caa agt tgg aaa gaa 165
 Thr Asn Met Thr Gln Ser Leu Glu Arg Met Lys Gln Ser Trp Lys Glu
 5 10 15
 gcc ccc aag cat att aag gag acc tat gga cag cag tat ttt gat gcc 213
 Ala Pro Lys His Ile Lys Glu Thr Tyr Gly Gln Gln Tyr Phe Asp Ala
 20 25 30
 ctt tac aat atc atg aag gaa ggg ctg ttg aat tgt agc aca aac ctg 261
 Leu Tyr Asn Ile Met Lys Glu Gly Leu Leu Asn Cys Ser Thr Asn Leu
 35 40 45
 aac ctg gtc act gac tgc atg gaa cat gct ctg aca tcg g 301
 Asn Leu Val Thr Asp Cys Met Glu His Ala Leu Thr Ser
 50 55 60

<210> 1785
 <211> 473
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 127..471

<400> 1785
 ggcagtcggc gacgctcaga gcggaagagg gaagtgaatc aggcgccggg tagtgggttg 60
 ctgggctggg cttgctgagg tagaggcagc gccagaaga ggcctttgcc gctggtcggg 120
 attggg atg tcg aag aac aca gtg tcg tcg gcc cgc ttc cgg aag gtg 168
 Met Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val
 1 5 10
 gac gtg gat gaa tat gac gag aac aag ttc gtg gac gaa gaa gat ggg 216
 Asp Val Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly
 15 20 25 30
 ggc gac ggc cag gcc ggg ccc gac gag ggc gag gtg gac tcc tgc ctg 264
 Gly Asp Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu
 35 40 45
 cgg caa gga aac atg aca gct gcc cta cag gca gct ctg aag aac ccc 312
 Arg Gln Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro
 50 55 60
 cct atc aac acc aag agt cag gca gtg aag gac cgg gca ggc agc att 360
 Pro Ile Asn Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile
 65 70 75
 gtc ttg aag gtg ctc atc tct ttt aaa gct aat gat ata gaa aag gca 408
 Val Leu Lys Val Leu Ile Ser Phe Lys Ala Asn Asp Ile Glu Lys Ala
 80 85 90
 gtt caa tct ctg gac aag aat ggt gtg gat ctc cta atg aag tat att 456
 Val Gln Ser Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile
 95 100 105 110
 tat aaa gga ttt gag ag 473
 Tyr Lys Gly Phe Glu
 115

<210> 1786
 <211> 421
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 194..421

<400> 1786
 tttctgggtg tgaagcgcac accgacgggg acgagagcgc agaggatggc gcttttagat 60
 acttccagtc ttccgatgtt gtgatcgag tgtgagtga gacactcagg atggctcaag 120
 gatccgggga tcaaagagca gtgggggttg ctgaccaga ggagagttct ccaaactga 180
 tcgtttactg caa atg gct gga acc tgt atc tgg tgt atc aca acg ctc 229
 Met Ala Gly Thr Cys Ile Trp Cys Ile Thr Thr Leu

	1		5		10	
cat ttc gct gat cac aca cag cca gaa gtg aca gtc gct tct ctc act						277
His Phe Ala Asp His Thr Gln Pro Glu Val Thr Val Ala Ser Leu Thr						
15		20		25		
gcc aag gac aga gga gac tct ggc tgg aca gga gaa att cag gtc gaa						325
Ala Lys Asp Arg Gly Asp Ser Gly Trp Thr Gly Glu Ile Gln Val Glu						
30		35		40		
cca aga ttg aag aca tca tta caa aga tgc aag atg aca aga cag ggg						373
Pro Arg Leu Lys Thr Ser Leu Gln Arg Cys Lys Met Thr Arg Gln Gly						
45		50		55		60
gtg tgc cat cag aac agt caa gag ctt tct ctc caa aat ccc agt gtc						421
Val Cys His Gln Asn Ser Gln Glu Leu Ser Leu Gln Asn Pro Ser Val						
65		70		75		

<210> 1787
 <211> 390
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 33..389

<400> 1787	
actgaccctg ctctctcctt tccctgtag ac atg ggc act cca cag aag gat	53
Met Gly Thr Pro Gln Lys Asp	
1	5
gtt att atc aag tca gat gca ccg gac act ttg tta ttg gag aaa cat	101
Val Ile Ile Lys Ser Asp Ala Pro Asp Thr Leu Leu Leu Glu Lys His	
10	15
gca gat tat atc gca tcc tat ggc tca aag aaa gat gat tat gaa tac	149
Ala Asp Tyr Ile Ala Ser Tyr Gly Ser Lys Lys Asp Asp Tyr Glu Tyr	
25	30
tgt atg tct gag tat ttg aga atg agt ggc atc tat tgg ggt ctg aca	197
Cys Met Ser Glu Tyr Leu Arg Met Ser Gly Ile Tyr Trp Gly Leu Thr	
40	45
gta atg gat ctc atg gga cwa ctt cat cgc atg aat aga gaa gag att	245
Val Met Asp Leu Met Gly Xaa Leu His Arg Met Asn Arg Glu Glu Ile	
60	65
ctg gca ttt att aag tct tgc caa cat gaa tgt ggt gga ata agt gct	293
Leu Ala Phe Ile Lys Ser Cys Gln His Glu Cys Gly Gly Ile Ser Ala	
75	80
agt atc gga cat gat cct cat ctk tta tac act ctt agt gct gtc cag	341
Ser Ile Gly His Asp Pro His Leu Leu Tyr Thr Leu Ser Ala Val Gln	
90	95
gta aat act aat caa aat tgc aac gat ctt gat agt atg ttc tct tac t	390
Val Asn Thr Asn Gln Asn Cys Asn Asp Leu Asp Ser Met Phe Ser Tyr	
105	110
	115

<210> 1788
 <211> 320
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 60..320

<400> 1788
 acgtnttttc ggggcgaccc tcttcttggc gtagagtttt cagattgctc ttgggaacc 59
 atg ccg aaa gta gtg tct cgg tca gta gtc tgc tct gac act cgg gac 107
 Met Pro Lys Val Val Ser Arg Ser Val Val Cys Ser Asp Thr Arg Asp
 1 5 10 15
 cgg gag gaa tat gac gac ggc gag aag ccc ctc cat gtt tac tac tgt 155
 Arg Glu Glu Tyr Asp Asp Gly Glu Lys Pro Leu His Val Tyr Tyr Cys
 20 25 30
 ttg tgc ggc cag atg gtc cta gtg ctg gac tgc cag tta gag aaa ttg 203
 Leu Cys Gly Gln Met Val Leu Val Leu Asp Cys Gln Leu Glu Lys Leu
 35 40 45
 ccc atg agg ccc cgg gac cgg tcc cgt gtg att gat gct gcc aaa cat 251
 Pro Met Arg Pro Arg Asp Arg Ser Arg Val Ile Asp Ala Ala Lys His
 50 55 60
 gcc cat aag ttt tgt aac aca gaa gat gag gag act atg tat ctg cgg 299
 Ala His Lys Phe Cys Asn Thr Glu Asp Glu Glu Thr Met Tyr Leu Arg
 65 70 75 80
 aga cct gaa ggc att gaa cga 320
 Arg Pro Glu Gly Ile Glu Arg
 85

<210> 1789
 <211> 242
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 13..240

<400> 1789
 agacaaataa ac atg gag tcc atc ttc cac gag aaa caa gaa ggc tca ctt 51
 Met Glu Ser Ile Phe His Glu Lys Gln Glu Gly Ser Leu
 1 5 10
 tgt gct caa cat tgc ctg aat aac tta ttg caa gga gaa tat ttt agc 99
 Cys Ala Gln His Cys Leu Asn Asn Leu Leu Gln Gly Glu Tyr Phe Ser
 15 20 25
 cct gtg gaa tta tcc tca att gca cac agc tgg atg agg aag agg atg 147
 Pro Val Glu Leu Ser Ser Ile Ala His Ser Trp Met Arg Lys Arg Met
 30 35 40 45
 aga atg gca gaa gga gga gtt act agt gaa gat tat cgc acg ttt tta 195
 Arg Met Ala Glu Gly Gly Val Thr Ser Glu Asp Tyr Arg Thr Phe Leu
 50 55 60
 cag gta ctg att tta aac tca cta agt cac att tct ttt ttt ttt tt 242
 Gln Val Leu Ile Leu Asn Ser Leu Ser His Ile Ser Phe Phe Phe
 65 70 75

Xaa	Asp	Leu	Thr	Val	Arg	Xaa	Gln	Arg	Ala	Xaa	Xaa	Asp	Cys	Glu	Asn	
25						30				35						
nnn	agg	mgg	cga	acc	cag	aga	tgt	gtg	gaa	gac	gcc	aag	ata	ttt	gga	377
Xaa	Arg	Arg	Arg	Thr	Gln	Arg	Cys	Val	Glu	Asp	Ala	Lys	Ile	Phe	Gly	
40					45				50					55		
atc	cag	ag														385
Ile	Gln															

<210> 1792
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 20..463

<400> 1792																	
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		Met	Ala	Ala	Pro	Leu	Gly	Gly	Met	Phe	Ser	Gly					
		1				5					10						
cag	cca	ccc	ggt	ccc	cct	cag	gcc	ccg	ccg	ggc	ctt	ccg	ggc	caa	gct	100	
Gln	Pro	Pro	Gly	Pro	Pro	Gln	Ala	Pro	Pro	Gly	Leu	Pro	Gly	Gln	Ala		
		15				20					25						
tgc	ctt	ctt	cag	gca	gct	cca	ggc	gct	cct	aga	cct	tcc	agc	agt	act	148	
Ser	Leu	Leu	Gln	Ala	Ala	Pro	Gly	Ala	Pro	Arg	Pro	Ser	Ser	Ser	Thr		
		30				35					40						
ttg	gtg	gac	gag	ttg	gag	tca	tct	ttc	gag	gct	tgc	ttt	gca	tct	ctg	196	
Leu	Val	Asp	Glu	Leu	Glu	Ser	Ser	Phe	Glu	Ala	Cys	Phe	Ala	Ser	Leu		
		45				50					55						
gtg	agt	cag	gac	tat	gtc	aat	ggc	acc	gat	cag	gaa	gaa	att	cga	acc	244	
Val	Ser	Gln	Asp	Tyr	Val	Asn	Gly	Thr	Asp	Gln	Glu	Glu	Ile	Arg	Thr		
		60			65				70					75			
ggt	gtt	gat	cag	tgt	atc	cag	aas	nnt	ctg	gat	att	gca	aga	cag	aca	292	
Gly	Val	Asp	Gln	Cys	Ile	Gln	Xaa	Xaa	Leu	Asp	Ile	Ala	Arg	Gln	Thr		
			80					85						90			
gaa	tgt	ttt	ttc	ttm	caa	aaa	aga	ttg	cag	ttr	kct	gtc	cag	aaa	cca	340	
Glu	Cys	Phe	Phe	Xaa	Gln	Lys	Arg	Leu	Gln	Leu	Xaa	Val	Gln	Lys	Pro		
		95						100					105				
gag	caa	gtt	atc	aaa	gag	gat	gtg	tca	gaa	cta	agg	aat	gaa	tta	cag	388	
Glu	Gln	Val	Ile	Lys	Glu	Asp	Val	Ser	Glu	Leu	Arg	Asn	Glu	Leu	Gln		
		110					115					120					
cgg	aaa	gat	gca	cta	gtc	cag	aag	cac	ttg	aca	aag	ctg	agg	cat	tgg	436	
Arg	Lys	Asp	Ala	Leu	Val	Gln	Lys	His	Leu	Thr	Lys	Leu	Arg	His	Trp		
		125				130					135						
cag	cag	gtg	ctg	gag	gac	atc	aac	gtg	ca							465	
Gln	Gln	Val	Leu	Glu	Asp	Ile	Asn	Val									
140						145											

<210> 1793
 <211> 370
 <212> DNA
 <213> Homo sapiens

004220"666T56

004220" 665E7560

<220>
<221> CDS
<222> 125..370

<400> 1793
aatccgtgca cagagaagcg gggcgaactg aggcgagtga agtggactct gagggctacc 60
gctaccgccca ctgctgcggc aggggcgtgg agggcagagg gccgcggagg ccgcagttgc 120
aaac atg gct cag agc aga gac ggc gga aac ccg ttc gcc gag ccc agc 169
Met Ala Gln Ser Arg Asp Gly Gly Asn Pro Phe Ala Glu Pro Ser
1 5 10 15
gag ctt gac aac ccc ttt cag gac cca gct gtg atc cag cac cga ccc 217
Glu Leu Asp Asn Pro Phe Gln Asp Pro Ala Val Ile Gln His Arg Pro
20 25 30
agc cgg cag tat gcc acg ctt gac gtc tac aac cct ttt gag acc cgg 265
Ser Arg Gln Tyr Ala Thr Leu Asp Val Tyr Asn Pro Phe Glu Thr Arg
35 40 45
gag gcc tca gct gca gca gcc aca gct gag ctg ctg aag aaa cag gag 313
Glu Ala Ser Ala Ala Ala Ala Thr Ala Glu Leu Leu Lys Lys Gln Glu
50 55 60
gag ctc aac cgg aag gca gag gag ttg gac cga agg aag cga gag ctg 361
Glu Leu Asn Arg Lys Ala Glu Glu Leu Asp Arg Arg Lys Arg Glu Leu
65 70 75
cag cat gct 370
Gln His Ala
80

<210> 1794
<211> 492
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 90..491

<400> 1794
agaggagctc atgcgcagta tgtgtggttg gggaattcat gtggaggtca gagtggaagc 60
aggtgtgaga ggggtccagca gaaggaaac atg gct gcc aaa gtg ttt gag tcc 113
Met Ala Ala Lys Val Phe Glu Ser
1 5
att ggc aag ttt ggc ctg rcc tta gct gtt gca gga ggc gtg gtg aac 161
Ile Gly Lys Phe Gly Leu Xaa Leu Ala Val Ala Gly Gly Val Val Asn
10 15 20
tct gcc tta tat aat gtg gat gct ggg cac aga gct gtc atc ttt gac 209
Ser Ala Leu Tyr Asn Val Asp Ala Gly His Arg Ala Val Ile Phe Asp
25 30 35 40
cga ttc cgt gga gtg cag gac att gtg gta ggg gaa ggg act cat ttt 257
Arg Phe Arg Gly Val Gln Asp Ile Val Val Gly Glu Gly Thr His Phe
45 50 55
ctc atc ccg tgg gta cag aaa cca att atc ttt gac tgc cgt tct cga 305
Leu Ile Pro Trp Val Gln Lys Pro Ile Ile Phe Asp Cys Arg Ser Arg

	60		65		70		
cca cgt aat gtg cca gtc atc act ggt agc aaa gat tta cag aat gtc							353
Pro Arg Asn Val Pro Val Ile Thr Gly Ser Lys Asp Leu Gln Asn Val							
	75		80		85		
aac atc aca ctg cgc atc ctc ttc cgg cct gtc gcc agc cag ctt cct							401
Asn Ile Thr Leu Arg Ile Leu Phe Arg Pro Val Ala Ser Gln Leu Pro							
	90		95		100		
cgc atc ttc acc agc atc gga gag gac tat gat gag cgt gtg ctg ccg							449
Arg Ile Phe Thr Ser Ile Gly Glu Asp Tyr Asp Glu Arg Val Leu Pro							
	105		110		115		120
tcc atc aca act gag atc ctc aag tca gtg gtg gct cgc ttt g							492
Ser Ile Thr Thr Glu Ile Leu Lys Ser Val Val Ala Arg Phe							
	125		130				

<210> 1795
 <211> 584
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 182..583

<400> 1795
 agaggagctc atgcgcagta tgtgtggttg gggaattcat gtggaggtca gagtggaagc 60
 agttatcttg gccccaggat gtcattccagc tcctgcttcc ataagaagca tgctgttctt 120
 aatacacgat gttgacaagc agtatggtga gsaggtgtga gaggggtccag cagaaggaaa 180
 c atg gct gcc aaa gtg ttt gag tcc att ggc aag ttt ggc ctg rcc tta 229
 Met Ala Ala Lys Val Phe Glu Ser Ile Gly Lys Phe Gly Leu Xaa Leu
 1 5 10 15
 gct gtt gca gga ggc gtg gtg aac tct gcc tta kat aat gtg gat gct 277
 Ala Val Ala Gly Gly Val Val Asn Ser Ala Leu Xaa Asn Val Asp Ala
 20 25 30
 ggg cac aga gct gtc atc ttt gac cga ttc cgt gga gtg cag gac att 325
 Gly His Arg Ala Val Ile Phe Asp Arg Phe Arg Gly Val Gln Asp Ile
 35 40 45
 gtg gta ggg gaa ggg act cat ttt ctc atc ccg tgg gta cag aaa cca 373
 Val Val Gly Glu Gly Thr His Phe Leu Ile Pro Trp Val Gln Lys Pro
 50 55 60
 att atc ttt gac tgc cgt tct cga cca cgt aat gtg cca gtc atc act 421
 Ile Ile Phe Asp Cys Arg Ser Arg Pro Arg Asn Val Pro Val Ile Thr
 65 70 75 80
 ggt agc aaa gat tta cag aat gtc aac atc aca ctg cgc atc ctc ttc 469
 Gly Ser Lys Asp Leu Gln Asn Val Asn Ile Thr Leu Arg Ile Leu Phe
 85 90 95
 cgg cct gtc gcc agc cag ctt cct cgc atc ttc acc agc atc gga gag 517
 Arg Pro Val Ala Ser Gln Leu Pro Arg Ile Phe Thr Ser Ile Gly Glu
 100 105 110
 gac tat gat gag cgt gtg ctg ccg tcc atc aca act gag atc ctc aag 565
 Asp Tyr Asp Glu Arg Val Leu Pro Ser Ile Thr Thr Glu Ile Leu Lys
 115 120 125
 tca gtg gtg gct cgc ttt g 584
 Ser Val Val Ala Arg Phe

130

<210> 1796
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 97..288

<400> 1796
atctggcgct gtaaagsstt agaggtgga ataacgacct gccttacgct ttgcggctgt 60
cgtcggagag gcatctgggt tcggactggg gccgcc atg ggg aaa gtg aat gtg 114
Met Gly Lys Val Asn Val
1 5
gcc aag ttg cgt tac atg agc cga gat gac ttc agg gtc ttg acc gcg 162
Ala Lys Leu Arg Tyr Met Ser Arg Asp Asp Phe Arg Val Leu Thr Ala
10 15 20
gtt gaa atg ggc atg aag aac cat gaa att gtt ccc ggc agt ttg att 210
Val Glu Met Gly Met Lys Asn His Glu Ile Val Pro Gly Ser Leu Ile
25 30 35
gct tct ata gcc agc ctt aaa cat ggt ggc tgt aat aaa gtt tta aga 258
Ala Ser Ile Ala Ser Leu Lys His Gly Gly Cys Asn Lys Val Leu Arg
40 45 50
gaa tta gtg aaa cat aaa ctc ata gcn tgg g 289
Glu Leu Val Lys His Lys Leu Ile Ala Trp
55 60

<210> 1797
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 56..433

<400> 1797
gaggcgggag ctgagctgag tggggcgggc ggcggcgggg cccgagccgg agaag atg 58
Met
1
gcg gtg cgg aag aag gac ggc ggc ccc aac gtg aag tac tac gag gcc 106
Ala Val Arg Lys Lys Asp Gly Gly Pro Asn Val Lys Tyr Tyr Glu Ala
5 10 15
gcg gac acc gtg acc cag ttc gac aac gtg cgg ctg tgg ctc ggc aag 154
Ala Asp Thr Val Thr Gln Phe Asp Asn Val Arg Leu Trp Leu Gly Lys
20 25 30
aac tac aag aag tat ata caa gct gaa cca ccc acc aac aag tcc ctg 202
Asn Tyr Lys Lys Tyr Ile Gln Ala Glu Pro Pro Thr Asn Lys Ser Leu
35 40 45
tct agc ctg gtt gta cag ttg cta caa ttt cag gaa gaa gtt ttt ggc 250

Ser	Ser	Leu	Val	Val	Gln	Leu	Leu	Gln	Phe	Gln	Glu	Glu	Val	Phe	Gly		
50					55				60					65			
aaa	cat	gtc	agc	aat	gca	ccg	ctc	act	aaa	ctg	ccg	atc	aaa	tgt	ttc	298	
Lys	His	Val	Ser	Asn	Ala	Pro	Leu	Thr	Lys	Leu	Pro	Ile	Lys	Cys	Phe		
			70					75					80				
cta	gat	ttc	aaa	gcg	gga	ggc	tcc	ttg	tgc	cac	att	ctt	gca	gct	gcc	346	
Leu	Asp	Phe	Lys	Ala	Gly	Gly	Ser	Leu	Cys	His	Ile	Leu	Ala	Ala	Ala		
			85				90					95					
tac	aaa	ttc	aag	agt	gac	cag	gga	tgg	cgg	cgt	tac	gat	ttc	cag	aat	394	
Tyr	Lys	Phe	Lys	Ser	Asp	Gln	Gly	Trp	Arg	Arg	Tyr	Asp	Phe	Gln	Asn		
	100					105					110						
cca	tca	cgc	atg	gac	cgc	aat	gtg	gaa	atg	ttt	atg	acc	at			435	
Pro	Ser	Arg	Met	Asp	Arg	Asn	Val	Glu	Met	Phe	Met	Thr					
	115					120					125						

<210> 1798
 <211> 329
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 95..328

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ggctggagga	cacacctaaa	catgtggaat	ccca	atg	ccg	ggc	agc	cag	ggc	caa						115
			Met	Pro	Gly	Ser	Gln	Gly	Gln							
			1				5									
atc	cat	atc	ccc	cca	ata	ttg	ggt	gcc	ctg	gag	ggt	cca	atc	ctg	ccc	163
Ile	His	Ile	Pro	Pro	Ile	Leu	Gly	Ala	Leu	Glu	Val	Pro	Ile	Leu	Pro	
	10					15					20					
acc	cac	cac	cta	tta	atc	cac	cct	ttc	ccc	cag	gcc	cct	gtc	ctc	ctc	211
Thr	His	His	Leu	Leu	Ile	His	Pro	Phe	Pro	Gln	Ala	Pro	Val	Leu	Leu	
	25					30				35						
ccc	cag	gag	ctc	ccc	atg	gca	atc	cag	ctt	tcc	ccc	cag	gtg	ggc	ccc	259
Pro	Gln	Glu	Leu	Pro	Met	Ala	Ile	Gln	Leu	Ser	Pro	Gln	Val	Gly	Pro	
	40				45				50					55		
ctc	atc	ctg	tgc	cac	agc	cag	ggt	atc	cag	gat	gcc	aac	cgt	tgg	gtc	307
Leu	Ile	Leu	Cys	His	Ser	Gln	Gly	Ile	Gln	Asp	Ala	Asn	Arg	Trp	Val	
			60					65					70			
cct	acc	ctc	ctc	cat	acc	cac	c									329
Pro	Thr	Leu	Leu	His	Thr	His										
			75													

<210> 1799
 <211> 393
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 224..391

<400> 1799

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atatcatagg gatgcccaat acataaccagc tgtgaggctt atcaccactg ttcttcctgg      60
catggccctg taagctcatc ttcggctgaa gagaagctag cacttgcaaa cattccatct      120
ggcaatctga gagaagctac tgagagaatc ctgagacatc cccagccacc taccactgct      180
cctgttccaa gcaaagaaga tctgctcact ccgaaaaaag aaa atg agt gag act      235
                               Met Ser Glu Thr
                               1
caa aat tca aca agc cag aaa gca atg gat gag gat aac aaa gcc gca      283
Gln Asn Ser Thr Ser Gln Lys Ala Met Asp Glu Asp Asn Lys Ala Ala
5                               10                               15                               20
agc caa aca atg ccg aat aca caa gac aag aac tac gag gat gaa ttg      331
Ser Gln Thr Met Pro Asn Thr Gln Asp Lys Asn Tyr Glu Asp Glu Leu
                               25                               30                               35
act caa gta gct cta gct ctg gtt gag gat gtc atc aat tat gct gtt      379
Thr Gln Val Ala Leu Ala Leu Val Glu Asp Val Ile Asn Tyr Ala Val
                               40                               45                               50
aag att gtg gaa ga      393
Lys Ile Val Glu
                               55

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<210> 1800

<211> 388

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 78..386

<400> 1800

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cgtggtcggtt cggtcct atg tcg cgc cgg gcc ctc cgg agg ctg agg ggg      110
                               Met Ser Arg Arg Ala Leu Arg Arg Leu Arg Gly
                               1                               5                               10
gaa cag cgc ggc cag gag ccc ctc ggg ccc ggc gcc ttg cat ttc gat      158
Glu Gln Arg Gly Gln Glu Pro Leu Gly Pro Gly Ala Leu His Phe Asp
                               15                               20                               25
ctc cgt gat gac gat gac gcg gaa gaa gaa ggg ccc aag cgg gag ctt      206
Leu Arg Asp Asp Asp Asp Ala Glu Glu Gly Pro Lys Arg Glu Leu
                               30                               35                               40
ggg gtc cgg cgt ccc ggg ggc gca ggg aag gag ggc gtc cga gtc aac      254
Gly Val Arg Arg Pro Gly Gly Ala Gly Lys Glu Gly Val Arg Val Asn
                               45                               50                               55
aac cgc ttc gag ctg ata aac att gac gat ctt gag gat gac cct gtg      302
Asn Arg Phe Glu Leu Ile Asn Ile Asp Asp Leu Glu Asp Asp Pro Val
60                               65                               70                               75
gtg aac ggg gan ngg tct ggc tgt gcg ctc aca gac gct gtg gca cca      350
Val Asn Gly Xaa Xaa Ser Gly Cys Ala Leu Thr Asp Ala Val Ala Pro
                               80                               85                               90
ggg aac aaa gga agg ggt mag cgt gga aac aca gag ag      388
Gly Asn Lys Gly Arg Gly Xaa Arg Gly Asn Thr Glu

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<210> 1801
 <211> 485
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 9..485

<400> 1801
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 Met Ala Met His Asn Lys Ala Ala Pro Pro Xaa Ile Pro Asp
 1 5 10
 acc cgg cgg gag ctg gcg gas ctc gtg aag cgg aag cag gag ctg gcg 98
 Thr Arg Arg Glu Leu Ala Xaa Leu Val Lys Arg Lys Gln Glu Leu Ala
 15 20 25 30
 gaa aca ttg gca aat ttg gag cga cag atc tat gct ttt gag gga agc 146
 Glu Thr Leu Ala Asn Leu Glu Arg Gln Ile Tyr Ala Phe Glu Gly Ser
 35 40 45
 tac ctg gaa gac act cag atg tat ggc aat att att cgt ggc tgg gat 194
 Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile Ile Arg Gly Trp Asp
 50 55 60
 cgg tat ctg acc aac caa aaa aac tcc aat agc aaa aat gat cga agg 242
 Arg Tyr Leu Thr Asn Gln Lys Asn Ser Asn Ser Lys Asn Asp Arg Arg
 65 70 75
 aac cgg aag ttt aag gaa gct gag cgg ctc ttc agt aaa tcc tcg gtt 290
 Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu Phe Ser Lys Ser Ser Val
 80 85 90
 acc tca gca gct gca gta agt gca ttg gca gga gtt cag gac cag ctc 338
 Thr Ser Ala Ala Ala Val Ser Ala Leu Ala Gly Val Gln Asp Gln Leu
 95 100 105 110
 att gaa aag agg gag cca gga agt ggg acg gaa agt gac act tct cca 386
 Ile Glu Lys Arg Glu Pro Gly Ser Gly Thr Glu Ser Asp Thr Ser Pro
 115 120 125
 gac ttc cac aat cag gaa aat gag ccc agc cag gag gac cct gag gmt 434
 Asp Phe His Asn Gln Glu Asn Glu Pro Ser Gln Glu Asp Pro Glu Xaa
 130 135 140
 ctg gat gga tct gtg cag gga gtg aac ctc aga agg ctg ctt ctt cta 482
 Leu Asp Gly Ser Val Gln Gly Val Asn Leu Arg Arg Leu Leu Leu Leu
 145 150 155
 ctt 485
 Leu

<210> 1802
 <211> 383
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 83..382

004220" 665450

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<400> 1802
ccgccagctc tcgcgtcctt tgctgggtcc agacaccggt tccgttgcaa acatttttaa 60
agggctggtt attcttcctg aa atg agt ttg gtg att aga aat ctg cag cga 112
                               Met Ser Leu Val Ile Arg Asn Leu Gln Arg
                               1           5           10
gtc atc ccc atc agg aga gcg cca ctt cgc agt aag atc gag att gta 160
Val Ile Pro Ile Arg Arg Ala Pro Leu Arg Ser Lys Ile Glu Ile Val
                               15           20           25
agg agg att tta gga gtg cag aaa ttt gac ctg ggg atc atc tgt gtt 208
Arg Arg Ile Leu Gly Val Gln Lys Phe Asp Leu Gly Ile Ile Cys Val
                               30           35           40
gac aac aag aat att cag cac att aat aga atc tac aga gat aga aat 256
Asp Asn Lys Asn Ile Gln His Ile Asn Arg Ile Tyr Arg Asp Arg Asn
                               45           50           55
gtc cca acc gat gtg ctt tct ttt cca ttt cat gag cat ctg aaa gca 304
Val Pro Thr Asp Val Leu Ser Phe Pro Phe His Glu His Leu Lys Ala
                               60           65           70
ggg gaa ttt ccc cag cct gat ttt cca gat grc tac aat ttg ggg rac 352
Gly Glu Phe Pro Gln Pro Asp Phe Pro Asp Xaa Tyr Asn Leu Gly Xaa
75           80           85           90
att ttc cta gga gtg gag tat atc ttc cat c 383
Ile Phe Leu Gly Val Glu Tyr Ile Phe His
                               95           100

<210> 1803
<211> 277
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 27..275

<400> 1803
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                               Met Glu Pro Asn Ser Leu Gln Trp Val
                               1           5
ggc tca ccg tgt ggc ttg cac gga cct tac att ttc tac aag gct ttt 101
Gly Ser Pro Cys Gly Leu His Gly Pro Tyr Ile Phe Tyr Lys Ala Phe
10           15           20           25
caa ttc cac ctt gaa ggc aaa cca aga att ttg tcc ctt ggc gac ttt 149
Gln Phe His Leu Glu Gly Lys Pro Arg Ile Leu Ser Leu Gly Asp Phe
30           35           40
ttc ttt gta aga tgt acg cca aag gat ccg att tgc ata gcg gas tcc 197
Phe Phe Val Arg Cys Thr Pro Lys Asp Pro Ile Cys Ile Ala Xaa Ser
45           50           55
agc tgt tgt ggg aag aga gga cca gcc ggc aac ttt tat cca gct cta 245
Ser Cys Cys Gly Lys Arg Gly Pro Ala Gly Asn Phe Tyr Pro Ala Leu
60           65           70
aac ttt att tcc tcc cag aag aca ctc ccc ag 277
Asn Phe Ile Ser Ser Gln Lys Thr Leu Pro

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75

80

<210> 1804
 <211> 408
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 253..408

<400> 1804
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 attgcgaaga atcgataaca tttcaagaag tgataacatt tctctgaaca agaaaagaag 180
 tgattgacca cgttttaaaa gtactctggc actgggtgctg tgttttcttc ccctccctaa 240
 atttgaagaa ct atg gag aaa tgg tac ttg atg aca gta gtg gtt tta ata 291
 Met Glu Lys Trp Tyr Leu Met Thr Val Val Val Leu Ile
 1 5 10
 gga cta aca gta cga tgg aca gtg tct ctt aat tct tat tca ggt gct 339
 Gly Leu Thr Val Arg Trp Thr Val Ser Leu Asn Ser Tyr Ser Gly Ala
 15 20 25
 ggt aaa ccg cct atg ttt ggt gat tat gaa gct cag aga cac tgg caa 387
 Gly Lys Pro Pro Met Phe Gly Asp Tyr Glu Ala Gln Arg His Trp Gln
 30 35 40 45
 gaa ata act ttt aat tta ccg 408
 Glu Ile Thr Phe Asn Leu Pro
 50

<210> 1805
 <211> 453
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 59..451

<400> 1805
 aagcaaggct cagcctcaag attcacagca tctcagacrc agcctaggcc gcaccagg 58
 atg tcg gac acc gag gag cag gaa tat gag gag gag cag ccg gaa gag 106
 Met Ser Asp Thr Glu Glu Gln Glu Tyr Glu Glu Glu Gln Pro Glu Glu
 1 5 10 15
 gag gct gcg gag gag gag gag gaa gcc ccc gaa gag ccg gag ccg gtg 154
 Glu Ala Ala Glu Glu Glu Glu Glu Ala Pro Glu Glu Pro Glu Pro Val
 20 25 30
 gca gag cca gaa gag gaa cgc ccc aaa cca agc cgc ccc gtg gtg cct 202
 Ala Glu Pro Glu Glu Glu Arg Pro Lys Pro Ser Arg Pro Val Val Pro
 35 40 45
 cct ttg atc ccg cca aag atc cca gaa ggg gag cgc gtt gac ttc gat 250
 Pro Leu Ile Pro Pro Lys Ile Pro Glu Gly Glu Arg Val Asp Phe Asp
 50 55 60

gac atc cac cgc aag cgc atg gag aaa gac ctg ctg gag ctg cag aca 298
 Asp Ile His Arg Lys Arg Met Glu Lys Asp Leu Leu Glu Leu Gln Thr
 65 70 75 80
 ctc atc gat gta cat ttc gag cag cgg aag aag gag gaa gag gag ctg 346
 Leu Ile Asp Val His Phe Glu Gln Arg Lys Lys Glu Glu Glu Glu Leu
 85 90 95
 gtt gcc ttg aag gag cgc att gag cgg cgc cgg tca gag aga gcc gag 394
 Val Ala Leu Lys Glu Arg Ile Glu Arg Arg Ser Glu Arg Ala Glu
 100 105 110
 caa cag cgc ttc aga act gag aag gaa cgc gaa cgt cag gct aag ctg 442
 Gln Gln Arg Phe Arg Thr Glu Lys Glu Arg Glu Arg Gln Ala Lys Leu
 115 120 125
 gcg gag gaa aa 453
 Ala Glu Glu
 130

<210> 1806
 <211> 879
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 221..877

<400> 1806
 attcctatac ttggttaaggg gcttgcaagg gcatagcccc cccagcaag actccgcaca 60
 caccgccgcc acccagtcac tggccaatgg gctcctagga agatcaaag tcaactataac 120
 acgagggtgt gagccgggag ccagtgcctg cagccgggtgc tgtccacagg gagctccagc 180
 ccttctcaca ctcgaccgc agaaaccacc caccttcacc atg tct gac gag gaa 235
 Met Ser Asp Glu Glu
 1 5
 gtt gaa cag gtg gag gag cag tac gaa gaa gaa gag gaa gcc cag gag 283
 Val Glu Gln Val Glu Glu Gln Tyr Glu Glu Glu Glu Glu Ala Gln Glu
 10 15 20
 gaa gag gag aaa ccg aga ccc aaa ctc act gct cct aag atc cca gaa 331
 Glu Glu Glu Lys Pro Arg Pro Lys Leu Thr Ala Pro Lys Ile Pro Glu
 25 30 35
 ggg gag aaa gtg gac ttc gat gac atc cag aag aag cgt cag aac aaa 379
 Gly Glu Lys Val Asp Phe Asp Asp Ile Gln Lys Lys Arg Gln Asn Lys
 40 45 50
 gac cta atg gag ctc cag gcc ctc atc gac agc cac ttt gaa gcc cgg 427
 Asp Leu Met Glu Leu Gln Ala Leu Ile Asp Ser His Phe Glu Ala Arg
 55 60 65
 aag aag gag gag gag gag ctg gtc gct ctc aaa gag aga atc gag aag 475
 Lys Lys Glu Glu Glu Glu Leu Val Ala Leu Lys Glu Arg Ile Glu Lys
 70 75 80 85
 cgc cgt gca gag agw gcc wgc agc cgg tgc tgt cca cag gga gct cca 523
 Arg Arg Ala Glu Xaa Ala Xaa Ser Arg Cys Cys Pro Gln Gly Ala Pro
 90 95 100
 gcc ctt ctc aca ctc gac ccg cag aaa cca ccc acc ttc acc atg tct 571
 Ala Leu Leu Thr Leu Asp Pro Gln Lys Pro Pro Thr Phe Thr Met Ser
 105 110 115

004220"666E560

<213> Homo sapiens

<220>

<221> CDS

<222> 129..314

<400> 1808

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aaatcgctcg gcctccccc tcccccggtg acggtcgctg gtgagtttaa atgagcaggg      60
gctggccggg ccggagccgc tacagggggg gcctgaggca ctgcagaaag tgggcctgag      120
cctcgagg atg acg gtg ctg cag gaa ccc gtc cag gct gct ata tgg caa      170
      Met Thr Val Leu Gln Glu Pro Val Gln Ala Ala Ile Trp Gln
          1             5             10
gca cta aac cac tat gct tac cga gat gcg gtt ttc ctc gca gaa cgc      218
Ala Leu Asn His Tyr Ala Tyr Arg Asp Ala Val Phe Leu Ala Glu Arg
15             20             25             30
ctt tat gca gaa gta cac tca gaa gaa gcc ttg ttt tta ctg gca acc      266
Leu Tyr Ala Glu Val His Ser Glu Glu Ala Leu Phe Leu Leu Ala Thr
          35             40             45
tgt tat tac cgc tca gga aag gca tat aaa gca tat aga ctc ttg aaa      314
Cys Tyr Tyr Arg Ser Gly Lys Ala Tyr Lys Ala Tyr Arg Leu Leu Lys
          50             55             60

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<210> 1809

<211> 387

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 149..385

<400> 1809

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gtcctcccg tccgccccgc gctgcgggtg ctgctgggct aacgggctcc gatccagcga      60
gcgctgcgtc ctgagatccc tgcgcccgtg cgcccgctct cgacccgagg cctccgctgc      120
gcgtggattc tgctgcgaac cggagacc atg gcc aaa cca gca cag ggt gcc      172
      Met Ala Lys Pro Ala Gln Gly Ala
          1             5
aag tac cgg ggc tcc atc cat gac ttc cca ggc ttt gac ccc aac cag      220
Lys Tyr Arg Gly Ser Ile His Asp Phe Pro Gly Phe Asp Pro Asn Gln
10             15             20
gat gcc gag gct ctg tac act gcc atg aag ggc ttt ggc agt gac aag      268
Asp Ala Glu Ala Leu Tyr Thr Ala Met Lys Gly Phe Gly Ser Asp Lys
25             30             35             40
gag gcc ata ctg gac ata atc acc tca cgg agc aac agg cag agg cag      316
Glu Ala Ile Leu Asp Ile Ile Thr Ser Arg Ser Asn Arg Gln Arg Gln
          45             50             55
gag gtc tgc cag agc tac aag tcc ctc tac ggc aag gac ctc att gct      364
Glu Val Cys Gln Ser Tyr Lys Ser Leu Tyr Gly Lys Asp Leu Ile Ala
          60             65             70
gat tta aag tat gaa ttg acg gg      387
Asp Leu Lys Tyr Glu Leu Thr
          75

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<210> 1810
 <211> 391
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 189..389

<400> 1810
 agattcctct ctcaccccca cgcagaggag agaacttgc tctggacccg ggtgggtgcc 60
 ggctcggctc tccttgtctt ccagagcggg ggcccgaag cacagtcctc ccagacgcca 120
 gcgccagaag ctccgatcgc ggctgcaccg ggagagcgcc gatctgggtg cgaggcaggt 180
 gcggggcc atg aat ggg acc gca aac ccg ctg ctg gac cgc gag gaa cat 230
 Met Asn Gly Thr Ala Asn Pro Leu Leu Asp Arg Glu Glu His
 1 5 10
 tgc ctg agg ctc ggg gag agc ttc gag aag cgg ccg cgg gcc tcc ttc 278
 Cys Leu Arg Leu Gly Glu Ser Phe Glu Lys Arg Pro Arg Ala Ser Phe
 15 20 25 30
 cac act att cgt tat gat ttt aaa cca gca tct ata gac act tcc tgt 326
 His Thr Ile Arg Tyr Asp Phe Lys Pro Ala Ser Ile Asp Thr Ser Cys
 35 40 45
 gaa gga gag ctt caa gtt ggc aaa gga gat rag tsa caa tta cac tgc 374
 Glu Gly Glu Leu Gln Val Gly Lys Gly Asp Xaa Xaa Gln Leu His Cys
 50 55 60
 cac ata tcc ctg gat cc 391
 His Ile Ser Leu Asp
 65

<210> 1811
 <211> 337
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 90..335

<400> 1811
 gtccggcccg gtccgtgcc gcagcgccc gccagccagc tccttgacc ctccgcggcc 60
 gaggcgctcc ctgggtgctcc ccgcgcacc atg gct cag cac ttc tcc ctg gcc 113
 Met Ala Gln His Phe Ser Leu Ala
 1 5
 gcc tgc gac gtg gtc gga ttc gac ctg gac cac act ctg tgt cgc tac 161
 Ala Cys Asp Val Val Gly Phe Asp Leu Asp His Thr Leu Cys Arg Tyr
 10 15 20
 aac ctg ccc gag agc gcc cta ccg cga gac cca cgc tca ccg gct cca 209
 Asn Leu Pro Glu Ser Ala Leu Pro Arg Asp Pro Arg Ser Pro Ala Pro
 25 30 35 40
 gat tta tca gca ata aac cag cca gcc gga agg gcc gag cgc aga agt 257
 Asp Leu Ser Ala Ile Asn Gln Pro Ala Gly Arg Ala Glu Arg Arg Ser

	45		50		55	
ggt cct gca act tta tcc gcc tcc atc cag tct att aat tgt tgc cgg						305
Gly Pro Ala Thr Leu Ser Ala Ser Ile Gln Ser Ile Asn Cys Cys Arg						
	60		65		70	
gaa gct aga gta agt agt tcg cca gtt aat ag						337
Glu Ala Arg Val Ser Ser Ser Pro Val Asn						
	75		80			

<210> 1812
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 31..396

<400> 1812	
actcggcttc cgtccattct tccggtggag atg gct gcg gcc gtg gcg ggg atg	54
Met Ala Ala Ala Val Ala Gly Met	
	1 5
ctg cga ggg ggt ctc ctg ccc cag gcg ggc cgg ctg cct acc ctc cag	102
Leu Arg Gly Gly Leu Leu Pro Gln Ala Gly Arg Leu Pro Thr Leu Gln	
	10 15 20
act gtc cgc tat ggc tcc aag gct gtt acc cgc cac cgt cgt gtg atg	150
Thr Val Arg Tyr Gly Ser Lys Ala Val Thr Arg His Arg Arg Val Met	
	25 30 35 40
cac ttt cag cgg cag aag ctg atg gct gtg act gaa tat atc ccc ccg	198
His Phe Gln Arg Gln Lys Leu Met Ala Val Thr Glu Tyr Ile Pro Pro	
	45 50 55
aaa cca gcc atc cac cca tca tgc ctg cca tct cct ccc agc ccc cca	246
Lys Pro Ala Ile His Pro Ser Cys Leu Pro Ser Pro Pro Ser Pro Pro	
	60 65 70
cag gag gag ata ggc ctc atc agg ctt ctc cgc cgg gag ata gca gca	294
Gln Glu Glu Ile Gly Leu Ile Arg Leu Leu Arg Arg Glu Ile Ala Ala	
	75 80 85
gtt ttc cag gac aac cga atg ata gcc gtc tgc cag aat gtg gct ctg	342
Val Phe Gln Asp Asn Arg Met Ile Ala Val Cys Gln Asn Val Ala Leu	
	90 95 100
agt gca gag gac aag ctt ctt atg cga cac cag ctg cgg aaa cac aag	390
Ser Ala Glu Asp Lys Leu Leu Met Arg His Gln Leu Arg Lys His Lys	
	105 110 115 120
atc ctg	396
Ile Leu	

<210> 1813
 <211> 329
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 149..328

<400> 1813

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actcggcttc cgtccattct tccggtggag atggctgcgg ccgtggcggg gatgctgcgc      60
agggggtctc ctgccccagg cgggcccggct gcctaccctc cagactgtcc gctatggctc      120
caaggctgtt acccgccacc gtcgtgtg atg cac ttt cag cgg cag aag ctg      172
                               Met His Phe Gln Arg Gln Lys Leu
                               1             5
atg gct gtg act gaa tat atc ccc ccg aaa cca gcc atc cac cca tca      220
Met Ala Val Thr Glu Tyr Ile Pro Pro Lys Pro Ala Ile His Pro Ser
    10             15             20
tgc ctg cca tct cct ccc agc ccc cca cag gag gag ata ggc ctc atc      268
Cys Leu Pro Ser Pro Pro Ser Pro Pro Gln Glu Glu Ile Gly Leu Ile
    25             30             35             40
agg ctt ctc cgc cgg gag ata gca gca gty ytc cag gms gcg tcg tcc      316
Arg Leu Leu Arg Arg Glu Ile Ala Ala Val Xaa Gln Xaa Ala Ser Ser
           45             50             55
gcc gta gtc ggt g
Ala Val Val Gly
           60

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<210> 1814

<211> 451

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 203..451

<400> 1814

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aacgcggcgc agggwgagag cgcgcgcttg cggacgcggc ggcattaaac ggttgcaggc      60
gtasagagtg gtcgttgtct ttctaggtct cagccggctc tcgcgacgtt cgcccgtcgc      120
ctctgaggct cctgaagccg aaaccagcta gactttcctc cttcccgcct gcctgtagcg      180
gcgttggtgc cactccgcca cc atg ttc gag gcg cgc ctg gtc cag ggc tcc      232
                               Met Phe Glu Ala Arg Leu Val Gln Gly Ser
                               1             5             10
atc ctc aag aag gtg ttg gag gca ctc aag gac ctc atc aac gag gcc      280
Ile Leu Lys Lys Val Leu Glu Ala Leu Lys Asp Leu Ile Asn Glu Ala
           15             20             25
tgc tgg gat att agc tcc agc ggt gta aac ctg cag agc atg gac tcg      328
Cys Trp Asp Ile Ser Ser Ser Gly Val Asn Leu Gln Ser Met Asp Ser
           30             35             40
tcc cac gtc tct ttg gtg cag ctc acc ctg cgg tct gag ggc ttc gac      376
Ser His Val Ser Leu Val Gln Leu Thr Leu Arg Ser Glu Gly Phe Asp
           45             50             55
acc tac cgc tgc gac cgc aac ctg gcc atg ggc gtg aac ctc acc agt      424
Thr Tyr Arg Cys Asp Arg Asn Leu Ala Met Gly Val Asn Leu Thr Ser
           60             65             70
atg tcc aaa ata cta aaa tgc gcc ggc
Met Ser Lys Ile Leu Lys Cys Ala Gly
           75             80

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<210> 1815
 <211> 467
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 119..466

<400> 1815
 acgtgtgagg ggcggcccga gggtcacgtga cggagcgccg gagcggaggg agccgggggt 60
 gggagttctc ctgaggggaag aggagtggag tagggggrac gcggcgccgg cgttgaca 118
 atg agt ttt ctt gga ggc ttt ttt ggt cca att tgt gag atc gat att 166
 Met Ser Phe Leu Gly Gly Phe Phe Gly Pro Ile Cys Glu Ile Asp Ile
 1 5 10 15
 gtt ctt aat gat ggg gaa acc agg aaa atg gca gaa atg aaa act gaa 214
 Val Leu Asn Asp Gly Glu Thr Arg Lys Met Ala Glu Met Lys Thr Glu
 20 25 30
 gat ggc aaa gta gaa aaa cac tat ctc ttc tat gac gga gaa tcc gtt 262
 Asp Gly Lys Val Glu Lys His Tyr Leu Phe Tyr Asp Gly Glu Ser Val
 35 40 45
 tca gga aag gta aac cta gcc ttt aag caa cct gga aag agg cta gaa 310
 Ser Gly Lys Val Asn Leu Ala Phe Lys Gln Pro Gly Lys Arg Leu Glu
 50 55 60
 cac caa gga att aga att gaa ttt gta ggt caa att gra ctt ttc aat 358
 His Gln Gly Ile Arg Ile Glu Phe Val Gly Gln Ile Xaa Leu Phe Asn
 65 70 75 80
 gac aag agt aat act cat gaa ttt gta aac cta gtg aaa gaa cta gcc 406
 Asp Lys Ser Asn Thr His Glu Phe Val Asn Leu Val Lys Glu Leu Ala
 85 90 95
 tta cct gga gaa ctg act cag agc aga agt tat gat ttt gaa ttt atg 454
 Leu Pro Gly Glu Leu Thr Gln Ser Arg Ser Tyr Asp Phe Glu Phe Met
 100 105 110
 caa gtt gaa aag c 467
 Gln Val Glu Lys
 115

<210> 1816
 <211> 410
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 25..408

<400> 1816
 aacttgcttt tgggagccag cggt atg gcg tcg ggc tgc aag att ggc ccg 51
 Met Ala Ser Gly Cys Lys Ile Gly Pro
 1 5
 tcc atc ctc aac agc gac ctg gcc aat tta ggg gcc gag tgc ctc cgg 99
 Ser Ile Leu Asn Ser Asp Leu Ala Asn Leu Gly Ala Glu Cys Leu Arg

10	15	20	25	
atg cta gac tct	ggg gcc gat tat	ctg cac ctg gac	gta atg gac gga	147
Met Leu Asp Ser	Gly Ala Asp Tyr	Leu His Leu Asp	Val Met Asp Gly	
	30	35	40	
cat gca cat gat	ggt gtc caa gcc	aga aca gtg ggt	aaa gcc aat ggc	195
His Ala His Asp	Gly Val Gln Ala	Arg Thr Val Gly	Lys Ala Asn Gly	
	45	50	55	
tgt agc agg agc	caa tca gta cac	ctt tca tcc gag	gct act gag aac	243
Cys Ser Arg Ser	Gln Ser Val His	Leu Ser Ser Glu	Ala Thr Glu Asn	
	60	65	70	
cca ggg gct ttg	att aaa gac att	cgg gag aat ggg	atg aag gtt ggc	291
Pro Gly Ala Leu	Ile Lys Asp Ile	Arg Glu Asn Gly	Met Lys Val Gly	
	75	80	85	
ctt gcc atc aaa	cca gga acc tca	gtt gag tat ttg	gca cca tgg gct	339
Leu Ala Ile Lys	Pro Gly Thr Ser	Val Glu Tyr Leu	Ala Pro Trp Ala	
	90	95	100	
aat cag ata gat	atg gcc ttg gtt	atg aca gtg gac	cgg ggt ttg gag	387
Asn Gln Ile Asp	Met Ala Leu Val	Met Thr Val Asp	Arg Gly Leu Glu	
	110	115	120	
ggc aga att cat	gga gat atg at			410
Gly Arg Ile His	Gly Asp Met			
	125			
<210> 1817				
<211> 434				
<212> DNA				
<213> Homo sapiens				
<220>				
<221> CDS				
<222> 105..434				
<400> 1817				
gggtaacttg cyyttgggag	ccagcgggyat ggcgtcgggc	tgcaagattg gcccgtccat		60
cctcaacagc gacctggcca	atttakgggc cgagtgcctc	cggg atg cta gac tct		116
		Met Leu Asp Ser		
		1		
kgg gcc gat tat	ctg cac ctg gac	gta atg gac ggg	cat ttt gtt ccc	164
Xaa Ala Asp Tyr	Leu His Leu Asp	Val Met Asp Gly	His Phe Val Pro	
	10	15	20	
aac atc acc ttt	ggt cac cct gtg	gta gaa agc ctt	cga aag cag cta	212
Asn Ile Thr Phe	Gly His Pro Val	Val Glu Ser Leu	Arg Lys Gln Leu	
	25	30	35	
ggc cag gac cct	ttc ttt gac atg	cac atg atg gtg	tcc aag cca gaa	260
Gly Gln Asp Pro	Phe Phe Asp Met	His Met Met Val	Ser Lys Pro Glu	
	40	45	50	
cag tgg gta aag	cca atg gct gta	gca ggw nnn aat	cag tac acc ttt	308
Gln Trp Val Lys	Pro Met Ala Val	Ala Gly Xaa Asn	Gln Tyr Thr Phe	
	55	60	65	
cat ctc gan gct	act gag aac cca	ggg gct ttg att	aaa gac att cgg	356
His Leu Xaa Ala	Thr Glu Asn Pro	Gly Ala Leu Ile	Lys Asp Ile Arg	
	70	75	80	
gag aat ggg atg	aag gtt ggc ctt	gcc atc aaa cca	gga acc tca gtt	404

Glu Asn Gly Met Lys Val Gly Leu Ala Ile Lys Pro Gly Thr Ser Val
 85 90 95 100
 gag tat ttg gca cca tgg gct aat cag ata
 Glu Tyr Leu Ala Pro Trp Ala Asn Gln Ile
 105 110

434

<210> 1818
 <211> 282
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 122..280

<400> 1818
 atttttcaga tttctttcaa atgaaggact gttaggtcac catattgtat attagggttaa 60
 tcttcaagct ttgaaatatg gaaggctgac acctgcgtgt tattctcttt caagtgccta 120
 a atg agc tgt tca tct gaa att cac gaa ttg gtt tat aga tat atc tgg 169
 Met Ser Cys Ser Ser Glu Ile His Glu Leu Val Tyr Arg Tyr Ile Trp
 1 5 10 15
 ata tac ata aac cag gga caa tgc aga aag ggt ata aca tct aga ttg 217
 Ile Tyr Ile Asn Gln Gly Gln Cys Arg Lys Gly Ile Thr Ser Arg Leu
 20 25 30
 cag caa atc tgt gca tgc cag att agt ttt ata agt atg cac ttt aca 265
 Gln Gln Ile Cys Ala Cys Gln Ile Ser Phe Ile Ser Met His Phe Thr
 35 40 45
 aat gat gaa ata agg gc 282
 Asn Asp Glu Ile Arg
 50

<210> 1819
 <211> 373
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 15..371

<400> 1819
 gaaaggttgc gaag atg gcg acg gcc ttg agc gag gag gag ctg gac aat 50
 Met Ala Thr Ala Leu Ser Glu Glu Glu Leu Asp Asn
 1 5 10
 gaa gac tat tac tcg ttg ctg aac gtg cgc agg gag gcc tct tct gaa 98
 Glu Asp Tyr Tyr Ser Leu Leu Asn Val Arg Arg Glu Ala Ser Ser Glu
 15 20 25
 gag ctg aaa gct gcc tac cgg agg ctc tgt atg ctc tac cat cca gac 146
 Glu Leu Lys Ala Ala Tyr Arg Arg Leu Cys Met Leu Tyr His Pro Asp
 30 35 40
 aag cac aga gac cca gag ctc aag tca cag gcg gaa cga ctg ttt aac 194
 Lys His Arg Asp Pro Glu Leu Lys Ser Gln Ala Glu Arg Leu Phe Asn

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45	50	55	60	
ctt gtt cac cag gct tat gaa gtg ctt agt gac ccc caa acc agg gcc				242
Leu Val His Gln Ala Tyr Glu Val Leu Ser Asp Pro Gln Thr Arg Ala				
	65	70	75	
atc tat gat ata tat ggg aag aga gga ctg gaa atg gaa gga tgg gag				290
Ile Tyr Asp Ile Tyr Gly Lys Arg Gly Leu Glu Met Glu Gly Trp Glu				
	80	85	90	
gtt gtg gaa agg agg aga acc cct gct gaa att cga gag gag ttt gag				338
Val Val Glu Arg Arg Arg Thr Pro Ala Glu Ile Arg Glu Glu Phe Glu				
	95	100	105	
cgg ctg cag aga gag aga gaa gag agg aga ttg ca				373
Arg Leu Gln Arg Glu Arg Glu Glu Arg Arg Leu				
110	115			

<210> 1820
 <211> 361
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 105..359

<400> 1820	
agtcggggcc cggaagtggc ccctgtagaa ccactgtggc accgctactc cgtgccgcgc	60
ccgtcgagca ttgcgttgct gcattgcgcc ccaccgactc cact atg ttg aag aaa	116
	Met Leu Lys Lys
	1
ttc gac aag aag gat gag gag tca ggt gga ggc tcc aac cca ttc cag	164
Phe Asp Lys Lys Asp Glu Glu Ser Gly Gly Gly Ser Asn Pro Phe Gln	
5	10
15	20
cac ctt gag aag agt gcg gta ctc cag gag gcc cgt gta ttt aat gaa	212
His Leu Glu Lys Ser Ala Val Leu Gln Glu Ala Arg Val Phe Asn Glu	
	25
	30
	35
act ccc atc aac cct cgg aaa tgt gcc cac atc ctc acc aag att ctt	260
Thr Pro Ile Asn Pro Arg Lys Cys Ala His Ile Leu Thr Lys Ile Leu	
	40
	45
	50
tat ctc ata aac cag ggg gag cac ctg ggg acc acg gaa gcg amc gag	308
Tyr Leu Ile Asn Gln Gly Glu His Leu Gly Thr Thr Glu Ala Xaa Glu	
	55
	60
	65
gcc ttc ttt gsc atg rcc aag ctc ttt cag tcc aat gat ccc aca ctc	356
Ala Phe Phe Xaa Met Xaa Lys Leu Phe Gln Ser Asn Asp Pro Thr Leu	
	70
	75
	80
cgt cg	361
Arg	
85	

<210> 1821
 <211> 391
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 46..390

<400> 1821

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gattgcctca tccgggtctt ttgcgttctc tttccctctc ccaac atg gcg gcc tca 57
                               Met Ala Ala Ser
                               1
gca aaa aag aag aat aag aag ggg aag act atc tcc cta aca gac ttt 105
Ala Lys Lys Lys Asn Lys Lys Gly Lys Thr Ile Ser Leu Thr Asp Phe
5                               10                               20
ctg gct gag gat ggg ggt act ggt gga gga agc acc tat gtt tcc aaa 153
Leu Ala Glu Asp Gly Gly Thr Gly Gly Gly Ser Thr Tyr Val Ser Lys
25                               30                               35
cca gtc agc tgg gct gat gaa acg gat gac ctg gaa gga gat gtt tcg 201
Pro Val Ser Trp Ala Asp Glu Thr Asp Asp Leu Glu Gly Asp Val Ser
40                               45                               50
acc act tgg cac agt aac gat gac gat gtg tat agg gcg cct cca att 249
Thr Thr Trp His Ser Asn Asp Asp Asp Val Tyr Arg Ala Pro Pro Ile
55                               60                               65
gac cgt tcc atc ctt ccc act gct cca cgg gct gct cgg gaa ccc aat 297
Asp Arg Ser Ile Leu Pro Thr Ala Pro Arg Ala Ala Arg Glu Pro Asn
70                               75                               80
atc gac cgg agc cgt ctt ccc aaa tcg cca ccc tac act gct ttt cta 345
Ile Asp Arg Ser Arg Leu Pro Lys Ser Pro Pro Tyr Thr Ala Phe Leu
85                               90                               95                               100
gga aac cta ccc tat gat gtt aca gaa gag tca att aag gaa ttc t 391
Gly Asn Leu Pro Tyr Asp Val Thr Glu Glu Ser Ile Lys Glu Phe
105                               110                               115

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<210> 1822
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 201..458

<400> 1822

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agcgcagaca cgggtggcggc gtgtgcgcct ccggggctgc tgattagaat aggggacttg 60
gccgtggatg gaatccggga aacccaaacc ggagatggaa ggatgaggct gcgtttgcag 120
cgcgatgaatg rgacgcggat atcaaagcag actgaatac ctgcgtggaa atagaagaca 180
gaaaggtttc aagacaacag atg aat tgt gaa aga gag cag cta agg ggt aat 233
                               Met Asn Cys Glu Arg Glu Gln Leu Arg Gly Asn
                               1                               5                               10
cag gaa gca gcc gct gcc cct gac aca atg gct cag cct tac gct tcg 281
Gln Glu Ala Ala Ala Ala Pro Asp Thr Met Ala Gln Pro Tyr Ala Ser
15                               20                               25
gcc cag ttt gck ccc ccg cag aac ggt atc ccc gcg gaa tac acg gcc 329
Ala Gln Phe Ala Pro Pro Gln Asn Gly Ile Pro Ala Glu Tyr Thr Ala
30                               35                               40
cct cat ccc cac ccc gcg cca gag tac aca ggc cag acc acg gtt ccc 377

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100-443886-100

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<220>
<221> CDS
<222> 43..201
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<210> 1824
<211> 357
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 173..355
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1215

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tac aag act ctg aag cas cag gaa gaa gta ttt cga aat tta gat gct      274
Tyr Lys Thr Leu Lys Xaa Gln Glu Glu Val Phe Arg Asn Leu Asp Ala
    20                      25                      30
cag tat gaa atg gca aga tca caa acc cac aca caa aga gga atg ggt      322
Gln Tyr Glu Met Ala Arg Ser Gln Thr His Thr Gln Arg Gly Met Gly
    35                      40                      45                      50
ttg ggt ttc aca tct tca atg cga ssa atg gat gc                        357
Leu Gly Phe Thr Ser Ser Met Arg Xaa Met Asp
                      55                      60

```

<210> 1825
 <211> 404
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 74..403

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<400> 1825
aaagacttcc actcgtgcgt gaggcgagag gagccggaga cgagaccaga ggccgaactc      60
gggttctgac aag atg gcc ggg ctg ccc cgc agg atc atc aag gaa acc      109
          Met Ala Gly Leu Pro Arg Arg Ile Ile Lys Glu Thr
            1              5              10
cag cgt ttg ctg gca gaa cca gtt cct ggc atc aaa gcc gaa cca gat      157
Gln Arg Leu Leu Ala Glu Pro Val Pro Gly Ile Lys Ala Glu Pro Asp
    15              20              25
gag agc aac gcc cgt tat ttt cat gtg gtc att gct ggc cct cag gat      205
Glu Ser Asn Ala Arg Tyr Phe His Val Val Ile Ala Gly Pro Gln Asp
    30              35              40
tcc ccc ttt gag gga ggg act ttt aaa ctt gaa cta ttc ctt cca gaa      253
Ser Pro Phe Glu Gly Gly Thr Phe Lys Leu Glu Leu Phe Leu Pro Glu
    45              50              55              60
gaa tac cca atg gca gcc cct aaa gta cgt ttc atg ayc aaa ktt tat      301
Glu Tyr Pro Met Ala Ala Pro Lys Val Arg Phe Met Xaa Lys Xaa Tyr
            65              70              75
cat cct aat gta gac aag ttg gga aga ata tgt tta gat att ttg aaa      349
His Pro Asn Val Asp Lys Leu Gly Arg Ile Cys Leu Asp Ile Leu Lys
            80              85              90
gat aag tgg tcc cca gcn ntg cag atc cgc aca gtt ctg cta tcg atc      397
Asp Lys Trp Ser Pro Ala Xaa Gln Ile Arg Thr Val Leu Leu Ser Ile
    95              100              105
cag gcc t                                                                404
Gln Ala
    110

```

<210> 1826
 <211> 432
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 83..430

<400> 1826

agagagtcac atctcttwtg tggaccagta tagacagaag taaacccagc tgacttggtt 60
cctgggacag ttgagttaag gg atg gct ttc aca gag cat tca ccg ctg acc 112
Met Ala Phe Thr Glu His Ser Pro Leu Thr
1 5 10
cct cac cgt cgg gac ctc tgt agc cgc tct atc tgg cta gca agg aag 160
Pro His Arg Arg Asp Leu Cys Ser Arg Ser Ile Trp Leu Ala Arg Lys
15 20 25
att cgt tca gac cwg act gct ctt acg gaa tcc tat gtg aag cat cag 208
Ile Arg Ser Asp Xaa Thr Ala Leu Thr Glu Ser Tyr Val Lys His Gln
30 35 40
ggc ctg aac aag aac atc aac ctg gac tct gcg gat ggg atg cca gtg 256
Gly Leu Asn Lys Asn Ile Asn Leu Asp Ser Ala Asp Gly Met Pro Val
45 50 55
gca agc act gat cag tgg agt gag ctg acc gag gca gag cga ctc caa 304
Ala Ser Thr Asp Gln Trp Ser Glu Leu Thr Glu Ala Glu Arg Leu Gln
60 65 70
gag aac ctt caa gct tat cgt acc ttc cat gtt ttg ttg gcc agg ctc 352
Glu Asn Leu Gln Ala Tyr Arg Thr Phe His Val Leu Leu Ala Arg Leu
75 80 85 90
tta gaa gac cag cag gtg cat ttt acc cca acc gaa gtg act tcc atc 400
Leu Glu Asp Gln Gln Val His Phe Thr Pro Thr Glu Val Thr Ser Ile
95 100 105
aag cta tas ata ccc ttc ttc tcc aag tcg ct 432
Lys Leu Xaa Ile Pro Phe Phe Ser Lys Ser
110 115

<210> 1827

<211> 286

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 126..284

<400> 1827

aaagaggtgc tgtgcaggag gcgggcgggc gcggttcttt ccggaaggat tgaatckcct 60
ttagccccgc ccgcctccgt agctgcctga agtagtgcag ggtagcccmg cmagttnsca 120
gggtc atg gcg ctg gct gct cga ctg tgg cgc ctt ctg cct ttc cga cgt 170
Met Ala Leu Ala Ala Arg Leu Trp Arg Leu Leu Pro Phe Arg Arg
1 5 10 15
gga gcc gcc ccg ggg tct cgt ctc cct gcg ggg asw tcg ggc agc cgc 218
Gly Ala Ala Pro Gly Ser Arg Leu Pro Ala Gly Xaa Ser Gly Ser Arg
20 25 30
ggg cat tgc ggc ccc tgt cga ttc cgc ggc ttc gag gta atg gga aac 266
Gly His Cys Gly Pro Cys Arg Phe Arg Gly Phe Glu Val Met Gly Asn
35 40 45
cca gga act ttc aaa aga gg 286
Pro Gly Thr Phe Lys Arg

50

<210> 1828
<211> 329
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 127..327

<400> 1828
aaagaggtgc tgtgcaggag gcgggcgggc gcggttcttt ccggaaggat tgaatckcct 60
ttagcccccgc ccgcctccgt agctgcctga agtagtgcag ggtcagcccg cmagttkcca 120
gggtca atg kcg ctg gct gct cga ctg tgg cgc ctt ctg cct ttc cga 168
Met Xaa Leu Ala Ala Arg Leu Trp Arg Leu Leu Pro Phe Arg
1 5 10
cgt gga gcc gcc ccg ggg tct cgt ctc cct gcg ggg asw tgc ggc agc 216
Arg Gly Ala Ala Pro Gly Ser Arg Leu Pro Ala Gly Xaa Ser Gly Ser
15 20 25 30
cgc ggg cat tgc ggc ccc tgt cga ttc cgc ggc ttc gag gta ccc ccg 264
Arg Gly His Cys Gly Pro Cys Arg Phe Arg Gly Phe Glu Val Pro Pro
35 40 45
tgg tcc tgg ctc ccg ctc ctc act tcc tac tca gta atg gga aac cca 312
Trp Ser Trp Leu Pro Leu Leu Thr Ser Tyr Ser Val Met Gly Asn Pro
50 55 60
gga act ttc aaa aga gg 329
Gly Thr Phe Lys Arg
65

<210> 1829
<211> 433
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 116..433

<400> 1829
attagctcca ttcaagccta caaattgcat caccctcctc ctctgcccag acctgggggc 60
tccaacacct ttcgctaggt ctggctctgg cctctgagcg aaccttccgt acagt atg 118
Met
1
gcg gct ccc gaa gcc ccg cmc ctg gac aga gtt ttc cgt aca aca tgg 166
Ala Ala Pro Glu Ala Pro Xaa Leu Asp Arg Val Phe Arg Thr Thr Trp
5 10 15
ctg tct aca gag tgc gat tcc cac cca ctt ccg cct agc tac cgg aag 214
Leu Ser Thr Glu Cys Asp Ser His Pro Leu Pro Pro Ser Tyr Arg Lys
20 25 30
ttt cta ttt gaa acc cag gcg gcc gac tta gcc ggt ggc acg aca gtt 262
Phe Leu Phe Glu Thr Gln Ala Ala Asp Leu Ala Gly Gly Thr Thr Val

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      35              40              45
gct gca ggg aat ctt tta aac grg agc gag aag gac tgc ggg cag gac 310
Ala Ala Gly Asn Leu Leu Asn Xaa Ser Glu Lys Asp Cys Gly Gln Asp
50              55              60              65
cgg cgg gct cct ggg gtt cag ccg tgc cnn ctc gtt acg atg acc agt 358
Arg Arg Ala Pro Gly Val Gln Pro Cys Xaa Leu Val Thr Met Thr Ser
      70              75              80
gtg gtt aag aca gtg tat agc ctg cag ccc ccc tct gcg ctg agc ggc 406
Val Val Lys Thr Val Tyr Ser Leu Gln Pro Pro Ser Ala Leu Ser Gly
      85              90              95
ggc cag csk yag tac aca caa act cgg 433
Gly Gln Xaa Xaa Tyr Thr Gln Thr Arg
      100              105

<210> 1830
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 47..472

<400> 1830
agcaccgcgtt agaggcgctc tccactgctg tcctcttcag ctcaag atg gtg gcc 55
Met Val Ala
1
tgc cgg gcg att ggc atc ctc agc cgc ttt tct gcc ttc agg atc ctc 103
Cys Arg Ala Ile Gly Ile Leu Ser Arg Phe Ser Ala Phe Arg Ile Leu
5 10 15
cgc tcc cga ggt tat ata tgc cgc aat ttt aca ggg tct tct gct ttg 151
Arg Ser Arg Gly Tyr Ile Cys Arg Asn Phe Thr Gly Ser Ser Ala Leu
20 25 30 35
ctg acc aga acc cat att aac tat gga gtc aaa ggg gat gtg gca gtt 199
Leu Thr Arg Thr His Ile Asn Tyr Gly Val Lys Gly Asp Val Ala Val
40 45 50
gtt cga att aac tct ccc aat tca aag gta aat aca ctg agt aaa gag 247
Val Arg Ile Asn Ser Pro Asn Ser Lys Val Asn Thr Leu Ser Lys Glu
55 60 65
cta cat tca gag ttc tca gaa gtt atg aat gaa atc tgg gct agt gat 295
Leu His Ser Glu Phe Ser Glu Val Met Asn Glu Ile Trp Ala Ser Asp
70 75 80
caa atc aga agt gcc gtc ctt atc tca tca aag cca ggc tgc ttt att 343
Gln Ile Arg Ser Ala Val Leu Ile Ser Ser Lys Pro Gly Cys Phe Ile
85 90 95
gca ggt gct gat atc aac atg tta gcc gct tgc aag acc ctt caa gaa 391
Ala Gly Ala Asp Ile Asn Met Leu Ala Ala Cys Lys Thr Leu Gln Glu
100 105 110 115
gta aca cag cta tca caa gaa gca cag aga ata gtt gag aaa ctt gaa 439
Val Thr Gln Leu Ser Gln Glu Ala Gln Arg Ile Val Glu Lys Leu Glu
120 125 130
aag tcc aca aag cct att gtg gct gcc atc aat gg 474
Lys Ser Thr Lys Pro Ile Val Ala Ala Ile Asn

```

135

140

<210> 1831
 <211> 291
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 77..289

<400> 1831
 cttttctctcc ccaggttcaa gggcagacgg ggtttttgag gaggattcgc aaattgacat 60
 agccacagta caggat atg ctt agc agc cac cat tac aag tca ttc aaa gtc 112
 Met Leu Ser Ser His His Tyr Lys Ser Phe Lys Val
 1 5 10
 agc atg atc cac aga ctg cga ttc aca acc gac gta cag cta ggt atc 160
 Ser Met Ile His Arg Leu Arg Phe Thr Thr Asp Val Gln Leu Gly Ile
 15 20 25
 tct gga gac aaa gta gag ata gac cct gtt acg aat cag aaa gcc agc 208
 Ser Gly Asp Lys Val Glu Ile Asp Pro Val Thr Asn Gln Lys Ala Ser
 30 35 40
 act aag ttt tgg att aag cag aaa ccc atc tca atc gat tcc gac ctg 256
 Thr Lys Phe Trp Ile Lys Gln Lys Pro Ile Ser Ile Asp Ser Asp Leu
 45 50 55 60
 ctc tgt gcc tgt gac ctt gct gaa gag aaa agc cc 291
 Leu Cys Ala Cys Asp Leu Ala Glu Glu Lys Ser
 65 70

<210> 1832
 <211> 441
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 254..439

<400> 1832
 ttttaaacc ccagtgggct gaaggcatca gagaggggtg cccaatgggt agggcagtc 60
 ttatggctga atatgctcag ttcccttttt ttccctctgg gctataaaga ctaaaccggg 120
 ctgggggctg tggctcacgc ctgtaatccc agcactttgg gaggccgagg cagcaggatt 180
 gcttgagccc aggagttcaa gaccagcctg ggcaacatag tgagacctcc tcattcttac 240
 agaaaattta aac atg aca ggc gtg ggg ggc ttg tca cgt ggg aga agt 289
 Met Thr Gly Val Gly Gly Leu Ser Arg Gly Arg Ser
 1 5 10
 cac atg gga gaa gag ttg aga att ggc ctg aat ttt gaa agg cca att 337
 His Met Gly Glu Glu Leu Arg Ile Gly Leu Asn Phe Glu Arg Pro Ile
 15 20 25
 ttg ttc ccc aca gga aca aaa aat tta aaa agt tgg cca ggc gtg gtg 385
 Leu Phe Pro Thr Gly Thr Lys Asn Leu Lys Ser Trp Pro Gly Val Val
 30 35 40

004220" 6664560

gct cac gcc tgt aat cct agc act ttg gga ggc caa ggg gga tca caa 433
Ala His Ala Cys Asn Pro Ser Thr Leu Gly Gly Gln Gly Gly Ser Gln
45 50 55 60

ggt cag ga 441
Gly Gln

<210> 1833

<211> 438

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 103..438

<400> 1833

aaaactgaaa gtgaaatagg gagctggcta ccagcgttga gtcccctgta aagccaaacc 60
ccctaaaggt ctccacactg ctgtttaacg gcacacttga ca atg gct tca gca 114
Met Ala Ser Ala
1

gca cgs ttg aac awt gat gtg gga gga ggt cac atg ccc tat ctg cct 162
Ala Arg Leu Asn Xaa Asp Val Gly Gly Gly His Met Pro Tyr Leu Pro
5 10 15 20

gga ccc ctt cgt gga gcc tgt gag cat cga gtg tgc cac agc ttc tgc 210
Gly Pro Leu Arg Gly Ala Cys Glu His Arg Val Cys His Ser Phe Cys
25 30 35

cag gaa tgc atc tct cag gtt ggg aaa ggt ggg ggc agc gtc tgt cct 258
Gln Glu Cys Ile Ser Gln Val Gly Lys Gly Gly Ser Val Cys Pro
40 45 50

gtg tgc cgg cag cgc ttt ctg ctc aag aat ctc cgg ccc aat cga cag 306
Val Cys Arg Gln Arg Phe Leu Leu Lys Asn Leu Arg Pro Asn Arg Gln
55 60 65

cta gcc aac atg gtg aac aac ctt aaa gaa atc agc cag gag gcc aga 354
Leu Ala Asn Met Val Asn Asn Leu Lys Glu Ile Ser Gln Glu Ala Arg
70 75 80

gag ggc aca cag ggg gaa cgg tgt gca gtg cat gga gag agr ctt cac 402
Glu Gly Thr Gln Gly Glu Arg Cys Ala Val His Gly Glu Arg Leu His
85 90 95 100

ctg ttc tgt gag aaa gat ggg aag gcc ttt gct ggg 438
Leu Phe Cys Glu Lys Asp Gly Lys Ala Phe Ala Gly
105 110

<210> 1834

<211> 421

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 26..421

<400> 1834

acttgcaagc tgcccgcgaat acgty atg gcg acc aaa cgc ctt ttc ggg gct 52
Met Ala Thr Lys Arg Leu Phe Gly Ala
1 5
acc cgg acg tgg gcc ggc tgg ggg gcc tgg gag ctc cta aac ccc gcc 100
Thr Arg Thr Trp Ala Gly Trp Gly Ala Trp Glu Leu Leu Asn Pro Ala
10 15 20 25
act tcc gga aga ctc ctg gcc cgg gat tat gcc aag aaa cca gtt atg 148
Thr Ser Gly Arg Leu Leu Ala Arg Asp Tyr Ala Lys Lys Pro Val Met
30 35 40
aag ggg gcc aaa tcg gga aaa ggt gca gtg acc agc gag gcc ctc aag 196
Lys Gly Ala Lys Ser Gly Lys Gly Ala Val Thr Ser Glu Ala Leu Lys
45 50 55
gac ccc gac gta tgc aca gat cct gtc cag ctc acc aca tat gcc atg 244
Asp Pro Asp Val Cys Thr Asp Pro Val Gln Leu Thr Thr Tyr Ala Met
60 65 70
ggc gtc aac atc tac aag gaa ggg cag gat gta ccc ctg aaa ccg gat 292
Gly Val Asn Ile Tyr Lys Glu Gly Gln Asp Val Pro Leu Lys Pro Asp
75 80 85
gct gag tac cct gaa tgg ctg ttc gag atg aac ttg ggt ccc cca aag 340
Ala Glu Tyr Pro Glu Trp Leu Phe Glu Met Asn Leu Gly Pro Pro Lys
90 95 100 105
acc ctg gag gag ctg gac ccc gag agc cgg gag tac tgg cgg cgg ctg 388
Thr Leu Glu Glu Leu Asp Pro Glu Ser Arg Glu Tyr Trp Arg Arg Leu
110 115 120
cgg aaa cag aac atc tgg cgc cac aac cgg ctg 421
Arg Lys Gln Asn Ile Trp Arg His Asn Arg Leu
125 130

<210> 1835
<211> 673
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 221..673

<400> 1835
agatttggt ttatakagcg gacccgtaag gccgacckgc tctaccggcg ggatttgatg 60
gcgtgatgtc tcacagaaag ttctccgctc ccagacatgg gtcctcggc ttctgcctc 120
ggaagcgcas agcaggcatc gtgggaaggt gaagagcttc cctaaggatg acccrtccaa 180
gccgtgccac ctcacagcct tcctgggata caaggctggc atg act cac atc gtg 235
Met Thr His Ile Val
1 5
cgg gaa gtc gac agg ccg gga tcc aag gtg aac aag aag gag gtg gtg 283
Arg Glu Val Asp Arg Pro Gly Ser Lys Val Asn Lys Lys Glu Val Val
10 15 20
gag gct gtg acc att gta gag aca cca ccc atg gtg gtt gtg ggc att 331
Glu Ala Val Thr Ile Val Glu Thr Pro Pro Met Val Val Val Gly Ile
25 30 35
gtg ggc tac gtg gaa acc cct cga ggc ctc cgg acc ttc aag act gtc 379
Val Gly Tyr Val Glu Thr Pro Arg Gly Leu Arg Thr Phe Lys Thr Val
40 45 50

ttt gct gag cac atc agt gat gaa tgc aag agg cgt ttc tat aag aat	427
Phe Ala Glu His Ile Ser Asp Glu Cys Lys Arg Arg Phe Tyr Lys Asn	
55 60 65	
tgg cat aaa tct aag aag aag gcc ttt acc aag tac tgc aag aaa tgg	475
Trp His Lys Ser Lys Lys Lys Ala Phe Thr Lys Tyr Cys Lys Lys Trp	
70 75 80 85	
cag gat gag gat ggc aag aag cag ctg gag aag gac ttc agc agc atg	523
Gln Asp Glu Asp Gly Lys Lys Gln Leu Glu Lys Asp Phe Ser Ser Met	
90 95 100	
aag aag tac tgc caa gtc atc cgt gtc att gcc cac acc cag atg cgc	571
Lys Lys Tyr Cys Gln Val Ile Arg Val Ile Ala His Thr Gln Met Arg	
105 110 115	
ctg ctt cct ctg cgc cag aag aag gcc cac ctg atg gag atc cag gtg	619
Leu Leu Pro Leu Arg Gln Lys Lys Ala His Leu Met Glu Ile Gln Val	
120 125 130	
aac gga ggc act gtg gcc gag aag ctg gac tgg gcc cgc gag agg ctt	667
Asn Gly Gly Thr Val Ala Glu Lys Leu Asp Trp Ala Arg Glu Arg Leu	
135 140 145	
gag cag	673
Glu Gln	
150	
<210> 1836	
<211> 647	
<212> DNA	
<213> Homo sapiens	
<220>	
<221> CDS	
<222> 66..647	
<400> 1836	
agatttggtt ttatakagcg gacccgtaag gccgacckgc tctaccggcg ggatttgatg	60
gcgtg atg aca tgg gtc cct cgg ctt cct gcc tgc gaa gcg cas agc agg	110
Met Thr Trp Val Pro Arg Leu Pro Ala Ser Glu Ala Xaa Ser Arg	
1 5 10 15	
cat cgt ggg aag gtg aag agc ttc cct aag gat gac ccs tcc aag ccg	158
His Arg Gly Lys Val Lys Ser Phe Pro Lys Asp Asp Pro Ser Lys Pro	
20 25 30	
gtc cac ctc aca gcc ttc ctg gga tac aag gct ggc atg act cac atc	206
Val His Leu Thr Ala Phe Leu Gly Tyr Lys Ala Gly Met Thr His Ile	
35 40 45	
gtg cgg gaa gtc gac agg ccg gga tcc aag gtg aac aag aag gag gtg	254
Val Arg Glu Val Asp Arg Pro Gly Ser Lys Val Asn Lys Lys Glu Val	
50 55 60	
gtg gag gct gtg acc att gta gag aca cca ccc atg gtg gtt gtg ggc	302
Val Glu Ala Val Thr Ile Val Glu Thr Pro Pro Met Val Val Val Gly	
65 70 75	
att gtg ggc tac gtg gaa acc cct cga ggc ctc cgg acc ttc aag act	350
Ile Val Gly Tyr Val Glu Thr Pro Arg Gly Leu Arg Thr Phe Lys Thr	
80 85 90 95	
gtc ttt gct gag cac atc agt gat gaa tgc aag agg cgt ttc tat aag	398
Val Phe Ala Glu His Ile Ser Asp Glu Cys Lys Arg Arg Phe Tyr Lys	

	100		105		110	
aat tgg cat aaa tct aag aag aag gcc ttt acc aag tac tgc aag aaa						446
Asn Trp His Lys Ser Lys Lys Lys Ala Phe Thr Lys Tyr Cys Lys Lys						
	115		120		125	
tgg cag gat gag gat ggc aag aag cag ctg gag aag gac ttc agc agc						494
Trp Gln Asp Glu Asp Gly Lys Lys Gln Leu Glu Lys Asp Phe Ser Ser						
	130		135		140	
atg aag aag tac tgc caa gtc atc cgt gtc att gcc cac acc cag atg						542
Met Lys Lys Tyr Cys Gln Val Ile Arg Val Ile Ala His Thr Gln Met						
	145		150		155	
cgc ctg ctt cct ctg cgc cag aag aag gcc cac ctg atg gag atc cag						590
Arg Leu Leu Pro Leu Arg Gln Lys Lys Ala His Leu Met Glu Ile Gln						
	160		165		170	
gtg aac gga ggc act gtg gcc gag aag ctg gac tgg gcc cgc gag agg						638
Val Asn Gly Gly Thr Val Ala Glu Lys Leu Asp Trp Ala Arg Glu Arg						
	180		185		190	
ctt gag cag						647
Leu Glu Gln						
<210> 1837						
<211> 424						
<212> DNA						
<213> Homo sapiens						
<220>						
<221> CDS						
<222> 100..423						
<400> 1837						
ctcgtctcccg gaagtggagg gtctacacga agcgccgctg ggtctgggtg cccggaggca						60
gcagcgttcg cggagttcgc ccgctggccc ccgatcacc atg tcg gct ttc gac						114
				Met Ser Ala Phe Asp		
			1	5		
acc aac ccc ttc gcg gac cca gtg gat gta aac ccc ttc cag gat ccc						162
Thr Asn Pro Phe Ala Asp Pro Val Asp Val Asn Pro Phe Gln Asp Pro						
	10		15		20	
tct gtg acc cag ctg acc aac gcc ccg cag gcg gcc tgg cgg aat tca						210
Ser Val Thr Gln Leu Thr Asn Ala Pro Gln Ala Ala Trp Arg Asn Ser						
	25		30		35	
acc cct tct cag aga caa atg cag cga caa cag ttc ctg tca ccc aac						258
Thr Pro Ser Gln Arg Gln Met Gln Arg Gln Gln Phe Leu Ser Pro Asn						
	40		45		50	
tcc ctg ggt cct cac agc cag cgg ttc tcc agc cat cag tgg aac caa						306
Ser Leu Gly Pro His Ser Gln Arg Phe Ser Ser His Gln Trp Asn Gln						
	55		60		65	
ccc agc cga ccc ccc agg ccg tgg tgt ctg cag ccc arg cag ggc ctg						354
Pro Ser Arg Pro Pro Arg Pro Trp Cys Leu Gln Pro Xaa Gln Gly Leu						
	70		75		80	
ctc cgg cag cag gaa gaa ctg gac agg aaa gct gcc gag ctg gaa cgc						402
Leu Arg Gln Gln Glu Glu Leu Asp Arg Lys Ala Ala Glu Leu Glu Arg						
	90		95		100	
aag gag cgg gag ctg cag aac a						424
Lys Glu Arg Glu Leu Gln Asn						

105

<210> 1838
<211> 263
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 88..261

<400> 1838
aagccgtaac ggaagcaagt gaaatgctca gtcttagacg actgcgtcgt gctatgaccg 60
gactttttct tgaaagggga tgacagc atg gga agc aat ggc tcc aca tgt aaa 114
Met Gly Ser Asn Gly Ser Thr Cys Lys
1 5
ccc gac act gaa aga caa ggc act ctc tcc aca gca gcc cca aca act 162
Pro Asp Thr Glu Arg Gln Gly Thr Leu Ser Thr Ala Ala Pro Thr Thr
10 15 20 25
agc cct gca ccc tgt ctc tct aac cac cac aac ckk tat ctc ctc atc 210
Ser Pro Ala Pro Cys Leu Ser Asn His His Asn Xaa Tyr Leu Leu Ile
30 35 40
ata aag agc tac aga aaa tct ttc atc cat ccc agg gga atc act tac 258
Ile Lys Ser Tyr Arg Lys Ser Phe Ile His Pro Arg Gly Ile Thr Tyr
45 50 55
cta tg 263
Leu

<210> 1839
<211> 273
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 111..272

<400> 1839
ctagccctgc ccggccccgg aggacttgca acactccgag gccaggaacg ctccgtctgg 60
aacggcgcag gtcccagcag ctgggggttcc ccctcagccc gtgagcagcc atg tcm 116
Met Ser
1
aac ccc arc gcc cca cca cca tat gaa gac cgm rnm ccc ctg tan cca 164
Asn Pro Xaa Ala Pro Pro Pro Tyr Glu Asp Arg Xaa Pro Leu Xaa Pro
5 10 15
kgc cct ctg mcc cct ggg ggc tat ggg cag cca tct gtg ctg cca gga 212
Xaa Pro Leu Xaa Pro Gly Gly Tyr Gly Gln Pro Ser Val Leu Pro Gly
20 25 30
ggg tat cct gcc tac cct ggc tac ccg cag cct ggc tac ggt cac cct 260
Gly Tyr Pro Ala Tyr Pro Gly Tyr Pro Gln Pro Gly Tyr Gly His Pro
35 40 45 50
gct ggc tac cca c 273

Ala Gly Tyr Pro

<210> 1840
<211> 266
<212> DNA
<213> Homo sapiens

<220> .
<221> CDS
<222> 86..265

<400> 1840
aggggagagc ccgagcgctg gagtnggtgc tgggaaaccc ggggctaatag ttgacaacag 60
gctcgagatt gtcctggggtc acata atg cca gct gag cgt aaa aag cca gca 112
Met Pro Ala Glu Arg Lys Lys Pro Ala
1 5
agt atg gaa gaa aaa gac tct tta cca aac aac aag gaa aaa gac tgc 160
Ser Met Glu Glu Lys Asp Ser Leu Pro Asn Asn Lys Glu Lys Asp Cys
10 15 20 25
agt gaa agg cgg aca gtg agc agc aag gag agg cca aaa gac gat atc 208
Ser Glu Arg Arg Thr Val Ser Ser Lys Glu Arg Pro Lys Asp Asp Ile
30 35 40
aag ctc act gcc aag aag gag gtc agc aag gcc cct gaa gac aag aag 256
Lys Leu Thr Ala Lys Lys Glu Val Ser Lys Ala Pro Glu Asp Lys Lys
45 50 55
aag aga ctg g 266
Lys Arg Leu
60

<210> 1841
<211> 484
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 210..482

<400> 1841
agatagcaaa tacaccccct tctctttgta acccggtcag gcctaggggtt cctccctgag 60
ttccagaata ggccaccag ttggggcgga cccttaaggc attctgggcc cagcctgcc 120
tataaacct catagtgtga cctttgaccc ctggtgtgat cttggggccg ggctgggacc 180
agcccctagt gtgggtgtg ggggcggcc atg gag ctg ggc agc tgc ttc aag 233
Met Glu Leu Gly Ser Cys Phe Lys
1 5
acc tat gag gac ttc aag gag tgc ttc agc gcc tac aaa agg gag aac 281
Thr Tyr Glu Asp Phe Lys Glu Cys Phe Ser Ala Tyr Lys Arg Glu Asn
10 15 20
agg tgc tcc ttc att ctc agg gac tgc gtc tcc gtc cgc ttc cac aac 329
Arg Cys Ser Phe Ile Leu Arg Asp Cys Val Ser Val Arg Phe His Asn
25 30 35 40
ctc aac cat ggc acc tcc atc cgc gaa gac atc ctg tat gtg cag nkg 377

Leu	Asn	His	Gly	Thr	Ser	Ile	Arg	Glu	Asp	Ile	Leu	Tyr	Val	Gln	Xaa	
				45					50					55		
gaa	att	tgt	ctg	cat	tcg	gac	cca	atc	aaa	cag	gaa	gag	aac	gcg	gga	425
Glu	Ile	Cys	Leu	His	Ser	Asp	Pro	Ile	Lys	Gln	Glu	Glu	Asn	Ala	Gly	
			60					65					70			
rgc	agn	cat	gtg	cca	gcg	tac	ttg	ctc	cta	agg	tac	aac	gag	aga	cta	473
Xaa	Xaa	His	Val	Pro	Ala	Tyr	Leu	Leu	Leu	Arg	Tyr	Asn	Glu	Arg	Leu	
		75					80					85				
gat	aga	cta	tt													484
Asp	Arg	Leu														
		90														

<210> 1842

<211> 341

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 79..339

<400> 1842

atcagcttca	agtgaagtta	atctgaggtg	aagcaaacag	aaaattgtgg	aggttttgtt		60
ggtgtgcaac	tgaggaac	atg gct	caa gaa	act aat	cac agc	caa gtg	ccy 111
		Met	Ala	Gln	Glu	Thr	Asn
		1			5		10
atg ctt	tgt tcc	act ggc	tgt gga	ttt tat	gga aac	cct cgt	aca aat 159
Met	Leu	Cys	Ser	Thr	Gly	Cys	Gly
		15			20		25
ggc atg	tgt tca	gta tgc	tat aaa	gaa cat	ctt caa	aga cag	aat agt 207
Gly	Met	Cys	Ser	Val	Cys	Tyr	Lys
		30			35		40
agt aat	ggt aga	ata agc	cca cct	gca acc	tct gtc	agt agt	ctg tct 255
Ser	Asn	Gly	Arg	Ile	Ser	Pro	Pro
		45			50		55
gaa tct	tta cca	gtt caa	tgc aca	gat ggc	agt gtg	cca gaa	gcc cag 303
Glu	Ser	Leu	Pro	Val	Gln	Cys	Thr
		60			65		70
tca gca	tta gac	tct aca	tca tct	atg cag	ccc anm	cc	341
Ser	Ala	Leu	Asp	Ser	Thr	Ser	Ser
			80				85

<210> 1843

<211> 337

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 72..335

<400> 1843

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agtatcctgc caagagtcct ccctgaccac cagaagttcc acctcaccat caagaaaggc      60
cctgggtccag g atg tgc aag gac tca cag aaa ccc tct gta ccc agt cat      110
      Met Cys Lys Asp Ser Gln Lys Pro Ser Val Pro Ser His
            1             5             10
ggg cca aag aca ccg tca tgc aag ggg gtg aag gct cca cac tcg tcc      158
Gly Pro Lys Thr Pro Ser Cys Lys Gly Val Lys Ala Pro His Ser Ser
      15             20             25
cgg mcc cgg gcg tgg aag cag gac ctc gag cag tct ctg gca gca gcc      206
Arg Xaa Arg Ala Trp Lys Gln Asp Leu Glu Gln Ser Leu Ala Ala Ala
      30             35             40             45
tat gtg ccg gtc gtt gtg gac tct aag ggg cag aat ccg gac aag ctc      254
Tyr Val Pro Val Val Val Asp Ser Lys Gly Gln Asn Pro Asp Lys Leu
            50             55             60
agg ttc aat ttc tac acc tcc cag tac tcc aac tcc ctg aac ccc ttc      302
Arg Phe Asn Phe Tyr Thr Ser Gln Tyr Ser Asn Ser Leu Asn Pro Phe
            65             70             75
tac act ttg cag aag cct acc tgt ggc cta cct gt      337
Tyr Thr Leu Gln Lys Pro Thr Cys Gly Leu Pro
            80             85

```

<210> 1844
 <211> 243
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 83..241

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<400> 1844
agtgcgccca acagcggact ccgagaccag cggatctcgg caaacctctt ttctcgacca      60
ccccctacc attcttggaa cc atg gcg gca gtg gcg gcg gcc tcg gct gaa      112
      Met Ala Ala Val Ala Ala Ala Ser Ala Glu
            1             5             10
ctg ctc atc atc ggc tgg tac atc ttc cgc gtg ctg ctg cag gta agt      160
Leu Leu Ile Ile Gly Trp Tyr Ile Phe Arg Val Leu Leu Gln Val Ser
            15             20             25
ctg acg ggg ttt cgg gtg gga gag ggt tcc caa ctc gcg ccc cta gaa      208
Leu Thr Gly Phe Arg Val Gly Glu Gly Ser Gln Leu Ala Pro Leu Glu
            30             35             40
ccc gca aga ctg cgt cgc gat tgc cgc ttc ccg ga      243
Pro Ala Arg Leu Arg Arg Asp Cys Arg Phe Pro
            45             50

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<210> 1845
 <211> 355
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 6..353

<400> 1845

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agtta atg cga aga ggg gga ggg gat agg acg aag aaa ccg aag gaa agc 50
      Met Arg Arg Gly Gly Gly Asp Arg Thr Lys Lys Pro Lys Glu Ser
          1          5          10          15
tca gct gca gcg gcg act ttc agt ttc att tcc acg gac cct cct gcc 98
Ser Ala Ala Ala Ala Thr Phe Ser Phe Ile Ser Thr Asp Pro Pro Ala
          20          25          30
tgg gcc gca gcc gcc gcc gcg atg ccc agt aag ttc agc tgc cgg cag 146
Trp Ala Ala Ala Ala Ala Met Pro Ser Lys Phe Ser Cys Arg Gln
          35          40          45
ctc cgg gag gcg ggc cag tgt ttc gag agt ktc ctg gtc gtt cgg gga 194
Leu Arg Glu Ala Gly Gln Cys Phe Glu Ser Xaa Leu Val Val Arg Gly
          50          55          60
ctg gac atg gag aca gat cgc gag cgg ctg cgg acc att tat aac cgc 242
Leu Asp Met Glu Thr Asp Arg Glu Arg Leu Arg Thr Ile Tyr Asn Arg
          65          70          75
gac ttc aag atc agc ttt ggg acc ccc gcc cct ggc ttc tcc tcc atg 290
Asp Phe Lys Ile Ser Phe Gly Thr Pro Ala Pro Gly Phe Ser Ser Met
80          85          90          95
ctg tat gga atg aag att gca aat ctg gcc tac gtc acc aag act cgg 338
Leu Tyr Gly Met Lys Ile Ala Asn Leu Ala Tyr Val Thr Lys Thr Arg
          100          105          110
gtc agg ttc ttc aga ct 355
Val Arg Phe Phe Arg
          115

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<210> 1846

<211> 480

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 54..479

<400> 1846

```

gatgtctggg gcgttcttgt attcgggtgat cttttgcgcc gtcttcttgc ttg atg 56
                        Met
                        1
tct cct gag cgg cgg cgg cgc sgg tcg agg gct gag ttg tcc gcg agg 104
Ser Pro Glu Arg Arg Arg Arg Xaa Ser Arg Ala Glu Leu Ser Ala Arg
          5          10          15
ccc cgc gct caa gcc gcc ttc tcc tgc cgg tcg gta gaa cgg acc cct 152
Pro Arg Ala Gln Ala Ala Phe Ser Cys Arg Ser Val Glu Arg Thr Pro
          20          25          30
tcc ttt att cct gtc tcc tct ttc ttt ttc cct gtg gct cag ccc gtt 200
Ser Phe Ile Pro Val Ser Ser Phe Phe Phe Pro Val Ala Gln Pro Val
          35          40          45
cgc tgg act gca aac cga gct ccc gtc tgc ctw rca gat ttc cat gag 248
Arg Trp Thr Ala Asn Arg Ala Pro Val Cys Leu Xaa Asp Phe His Glu
50          55          60          65
gac aac tta caa gga cct gta tgg cct cat ttt agc tgc ttc agt gtg 296

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Asp	Asn	Leu	Gln	Gly	Pro	Val	Trp	Pro	His	Phe	Ser	Cys	Phe	Ser	Val		
			70					75					80				
ttg	gag	ctg	tta	ctt	gct	cct	tca	ttt	cct	ggg	cct	ggt	gtg	aca	gtg	344	
Leu	Glu	Leu	Leu	Leu	Ala	Pro	Ser	Phe	Pro	Gly	Pro	Gly	Val	Thr	Val		
			85					90					95				
gct	act	gag	cgc	cat	gaa	ggt	tgt	ccc	aga	aaa	gaa	tgc	tgt	ccg	gat	392	
Ala	Thr	Glu	Arg	His	Glu	Gly	Cys	Pro	Arg	Lys	Glu	Cys	Cys	Pro	Asp		
		100					105					110					
act	ctg	ggg	gcg	aga	acg	ggg	tgc	tcg	ggc	cat	ggg	agc	tca	gcg	gct	440	
Thr	Leu	Gly	Ala	Arg	Thr	Gly	Cys	Ser	Gly	His	Gly	Ser	Ser	Ala	Ala		
		115				120					125						
tct	gca	gga	gct	ggt	aga	aga	kaa	aac	ccg	gtg	gat	gaa	a			480	
Ser	Ala	Gly	Ala	Gly	Arg	Arg	Xaa	Asn	Pro	Val	Asp	Glu					
		130			135					140							

<210> 1847

<211> 471

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 123..470

<400> 1847

cttttccttc	cccagtgct	ctttcctgcg	tcgttcggc	gcggcgggag	cagagatctg	60	
cgcccgtttg	cagcttgccg	tagggaggcg	tgggtgctg	aagcctccga	gcagccgcgg	120	
cc	atg	gcg	gat	gta	acc gcc cgt agt ctg caa tac gag tac aag gcg	167	
Met	Ala	Asp	Val	Thr	Ala	Arg	Ser
1		5		10		15	
aac	tcg	aat	ctt	gtg	ctc	caa	gct
Asn	Ser	Asn	Leu	Val	Leu	Gln	Ala
		20		25		30	
cgc	cgg	gat	gaa	ccc	aca	gga	gag
Arg	Arg	Asp	Glu	Pro	Thr	Gly	Glu
		35		40		45	
gag	ggc	acc	cgt	atg	gga	gac	aag
Glu	Gly	Thr	Arg	Met	Gly	Asp	Lys
		50		55		60	
cag	gag	gaa	aga	aga	gcc	aag	cga
Gln	Glu	Glu	Arg	Arg	Ala	Lys	Arg
		65		70		75	
gac	atc	aac	aag	atg	aag	ggt	tat
Asp	Ile	Asn	Lys	Met	Lys	Gly	Tyr
		80		85		90	
gag	atg	gtg	ggc	atc	atc	tac	aag
Glu	Met	Val	Gly	Ile	Ile	Tyr	Lys
		100		105		110	
acc	tat	gag	gtg	cta	c		
Thr	Tyr	Glu	Val	Leu			
		115					

<210> 1848

<211> 381
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 195..380

<400> 1848
 agtgacrgct gcgtgcggcg ggaatcatgg ctgctcgcag astctgcact tcgtattcaa 60
 agtgggaaac cgcttcacaga cggcgcgttt ctatcgggac gtcctgggga tgaagggttc 120
 trcggcatga ggaatttgaa gaakgctgca aagctgcctg taatgggcct tatgatggga 180
 aatggagtra aaca atg gtg gga ttt ggg cct gag gat gat cat ttt gtc 230
 Met Val Gly Phe Gly Pro Glu Asp Asp His Phe Val
 1 5 10
 gca gaa ctg act tac aat tat ggc gtc gga gac tac aag ctt ggc aat 278
 Ala Glu Leu Thr Tyr Asn Tyr Gly Val Gly Asp Tyr Lys Leu Gly Asn
 15 20 25
 gac ttt atg gga atc acg ctc gct tct agc cag gct gtc agc aac gcc 326
 Asp Phe Met Gly Ile Thr Leu Ala Ser Ser Gln Ala Val Ser Asn Ala
 30 35 40
 agg wag ctg gag tgg cca ctg acg gaa gtn gca gaa ggt gtt ttt gaa 374
 Arg Xaa Leu Glu Trp Pro Leu Thr Glu Val Ala Glu Gly Val Phe Glu
 45 50 55 60
 acc gag g 381
 Thr Glu

<210> 1849
 <211> 366
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 84..365

<400> 1849
 acttcggtcc tgagcgcttg ggagtttagt tgtttgccgg cgtasggcca gcgcctgagc 60
 ccgcccttga tcttcgctgt ggc atg gcg gac gag ggg aag tcg tac agc gaa 113
 Met Ala Asp Glu Gly Lys Ser Tyr Ser Glu
 1 5 10
 cac gat gat gaa cgc gtt aat ttc cct caa aga aag aag aaa ggc cgg 161
 His Asp Asp Glu Arg Val Asn Phe Pro Gln Arg Lys Lys Lys Gly Arg
 15 20 25
 ggt ccc ttc cgg tgg aaa tat ggt gaa gga aac cgt agg tct gga aga 209
 Gly Pro Phe Arg Trp Lys Tyr Gly Glu Gly Asn Arg Arg Ser Gly Arg
 30 35 40
 ggc ggt tct ggt att cgg tct tcc cgc ctt gag gaa gat gat gga gat 257
 Gly Gly Ser Gly Ile Arg Ser Ser Arg Leu Glu Glu Asp Asp Gly Asp
 45 50 55
 gtg gca atg agt gat gcc cag gat ggt ccc cga gta cga tac acc ccc 305
 Val Ala Met Ser Asp Ala Gln Asp Gly Pro Arg Val Arg Tyr Thr Pro

60	65	70	
tat acc acc cga cta acc gtc ggg gtg ata ctt kgc atg atc gag atc	353		
Tyr Thr Thr Arg Leu Thr Val Gly Val Ile Leu Xaa Met Ile Glu Ile			
75	80	85	90
gca ttc atg tta c	366		
Ala Phe Met Leu			

<210> 1850
 <211> 260
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 39..260

<400> 1850	
tagaaacttg tctkagcgtg gtgctgctgt ctctcgcc atg gtc atg gct ggc tca	56
Met Val Met Ala Gly Ser	
1	5
gga aac cta aag gtt ttg cag ctt tgt cgc ttc tta cac atg aaa acg	104
Gly Asn Leu Lys Val Leu Gln Leu Cys Arg Phe Leu His Met Lys Thr	
10	15
ggt ggt gaa atg aac tat ggt ttt cac tta gcc cac cac atg gcc ctt	152
Gly Gly Glu Met Asn Tyr Gly Phe His Leu Ala His His Met Ala Leu	
25	30
gga ctt cta ttt ttg gga gga nga agg tac tct ttg agc wya tca aat	200
Gly Leu Leu Phe Leu Gly Gly Xaa Arg Tyr Ser Leu Ser Xaa Ser Asn	
40	45
tct tcc att gcc gct ctt ctc tgt gcc ctt tat ccg cac ttc cca gct	248
Ser Ser Ile Ala Ala Leu Leu Cys Ala Leu Tyr Pro His Phe Pro Ala	
55	60
cac agc act gac	260
His Ser Thr Asp	

<210> 1851
 <211> 457
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 133..456

<400> 1851	
acacagcgcg tcgcggcagc ccccaaggaa gaccagcctg cctctggctg gttcctggcg	60
ctctgcgttt cgtgaccttg tccagtagaa ggctatttaa ttttcacaac tgcttgaatt	120
ttgacataca ag atg aag caa gat gcc tca aga aat gct gcc tac act gtg	171
Met Lys Gln Asp Ala Ser Arg Asn Ala Ala Tyr Thr Val	
1	5
gat tgt gaa gat tat gtg cat gtg gta gaa ttt aat ccc ttt gag aat	219
Asp Cys Glu Asp Tyr Val His Val Val Glu Phe Asn Pro Phe Glu Asn	

004220"665E1560

15	20	25	
ggg gat tca gga aac cta att gca tat ggt ggc aat aat tat gtg gtc			267
Gly Asp Ser Gly Asn Leu Ile Ala Tyr Gly Gly Asn Asn Tyr Val Val			
30	35	40	45
att ggc acg tgt acg ttt cag gaa gaa gaa gca gac gtt gaa ggc att			315
Ile Gly Thr Cys Thr Phe Gln Glu Glu Glu Ala Asp Val Glu Gly Ile			
	50	55	60
cag tat aaa aca ctt cga aca ttt cac cat gga gtc agg gtt gat ggc			363
Gln Tyr Lys Thr Leu Arg Thr Phe His His Gly Val Arg Val Asp Gly			
	65	70	75
ata gct tgg agc cca gag act aga ctt gat tca ttg cct cca gta atc			411
Ile Ala Trp Ser Pro Glu Thr Arg Leu Asp Ser Leu Pro Pro Val Ile			
	80	85	90
aaa ttt tgt act tca gct gct gat atg aaa att aga tta ttt act t			457
Lys Phe Cys Thr Ser Ala Ala Asp Met Lys Ile Arg Leu Phe Thr			
95	100	105	

<210> 1852
 <211> 307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 127..306

<400> 1852	
gacttttgcta acttcgtcct ccaagaccag ctgcgacttg acttactctc ctgggtccaag	60
gacacctaca gccccgacga acatttctgg gtgacactca acaggattcc cggtgttcct	120
ggctct atg cca aat gca tcc tgg act gga aac ctc aga gct ata aag	168
Met Pro Asn Ala Ser Trp Thr Gly Asn Leu Arg Ala Ile Lys	
1	5
tgg agt gac atg gaa gac aga cac gga ggc tgc cac ggc cac tat gta	216
Trp Ser Asp Met Glu Asp Arg His Gly Gly Cys His Gly His Tyr Val	
15	20
cat ggt att tgt atc tat gga aac gga gac tta aag tgg ctg gtt aat	264
His Gly Ile Cys Ile Tyr Gly Asn Gly Asp Leu Lys Trp Leu Val Asn	
	35
tca cca agc ctg ttt gct aac aag ttt gag ctt aat acc tac c	307
Ser Pro Ser Leu Phe Ala Asn Lys Phe Glu Leu Asn Thr Tyr	
50	55

<210> 1853
 <211> 384
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 205..384

<400> 1853

atcttggttct tcagccacat actttccttc cactggccag cattctcctc tattagacta 60
 gaactgtgga taaacctcag atgtgaattt ctccggagta agaaatcctc agaggaaatt 120
 acccagtata ttcaaagcta caagggattt gttgacataa cgggagaaca ttttgtgaat 180
 tcctgggtcc agagagaatt acct atg gca tca gct tat tgc aat gac agc 231

Met Ala Ser Ala Tyr Cys Asn Asp Ser

1 5
 atc ttt gct tac gaa gaa cta cgg ctg gac tct ttt aag gac tgg ccc 279
 Ile Phe Ala Tyr Glu Glu Leu Arg Leu Asp Ser Phe Lys Asp Trp Pro
 10 15 20 25

cgg gaa tca gct gtg gga gtt gca gca ctg gcc aaa gca ggt ctt ttc 327
 Arg Glu Ser Ala Val Gly Val Ala Ala Leu Ala Lys Ala Gly Leu Phe
 30 35 40

tac aca ggt ata aag gac atc gtc cag tgc ttt tcc tgt gga ggg tgt 375
 Tyr Thr Gly Ile Lys Asp Ile Val Gln Cys Phe Ser Cys Gly Gly Cys
 45 50 55

tta gag aaa 384
 Leu Glu Lys
 60

<210> 1854
 <211> 481
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 242..481

<400> 1854
 agttgacctt tggtaagggg gcaggtgccc agggccagag gcttctgctt caggctgtag 60
 tgggcacttg gctgccagcc cagtgtgaag gggggaggat ggagagaaag agaggcgggg 120
 ctggctgggg accgagtggc tcagggataa atgcgcasct gagagggggg gagctgacac 180
 tgtcccagct gccacctaga ctccggagctc catccaaacc tccagcgaag acatcccagc 240
 c atg gcc atg cag aaa atc ttt gcc cgg gaa atc ttg gac tcc agg ggc 289

Met Ala Met Gln Lys Ile Phe Ala Arg Glu Ile Leu Asp Ser Arg Gly

1 5 10 15
 aac ccc acg gtg gag gtg gac ctg cac acg gcc aag ggc saa ttc cga 337
 Asn Pro Thr Val Glu Val Asp Leu His Thr Ala Lys Gly Xaa Phe Arg
 20 25 30

gca gct gtg ccc agt ggg gct tcc acg ggt atc tat gag gct ctg gaa 385
 Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu
 35 40 45

cta aga gac gga gac aaa ggc cgc tac ctg ggg aaa gga gtc ctg aag 433
 Leu Arg Asp Gly Asp Lys Gly Arg Tyr Leu Gly Lys Gly Val Leu Lys
 50 55 60

gct gtg gag anc atc aac agt ast ctg ggc cct gct ctg ctg caa aag 481
 Ala Val Glu Xaa Ile Asn Ser Xaa Leu Gly Pro Ala Leu Leu Gln Lys
 65 70 75 80

<210> 1855
 <211> 362
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 107..361

<400> 1855
 gatataagcc cgggatcccg ccgggtcagg ttctctgctc tggacttggg aggctccgtt 60
 gcctgctccc ggaggagacg cgctgccgag gagaacccag cgggta atg aat ccc 115
 Met Asn Pro
 1
 ccg cgc ttc ttt gcc cag gcc ttc ccc aaa cct ccc ccc ggt ctg cgc 163
 Pro Arg Phe Phe Ala Gln Ala Phe Pro Lys Pro Pro Pro Gly Leu Arg
 5 10 15
 ggg ttc tcc tat tgg gct gtg gtg aag aca agg tgc ggc gac tsc agc 211
 Gly Phe Ser Tyr Trp Ala Val Val Lys Thr Arg Cys Gly Asp Xaa Ser
 20 25 30 35
 tcc cca ggt ctg ggc gct gcc ggg aga gag tct ttc ccg ctg ggg aga 259
 Ser Pro Gly Leu Gly Ala Ala Gly Arg Glu Ser Phe Pro Leu Gly Arg
 40 45 50
 ttt agt ttg ttg act cag gag cac ctc caa cga cag cta gtg gca gag 307
 Phe Ser Leu Leu Thr Gln Glu His Leu Gln Arg Gln Leu Val Ala Glu
 55 60 65
 gac ccg gga gct ggg agg ttc gga acg cgg ggc gag ctg ggg agg agg 355
 Asp Pro Gly Ala Gly Arg Phe Gly Thr Arg Gly Glu Leu Gly Arg Arg
 70 75 80
 gag ang c 362
 Glu Xaa
 85

<210> 1856
 <211> 298
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 105..296

<400> 1856
 atcatctgcy tttctaggag ctctgctatg cggctgcttt aagattctag ggttgtagag 60
 gccacgcca gacacgacgt ctggcaggaa cctcggcctc agag atg gct ctg agt 116
 Met Ala Leu Ser
 1
 aaa tca atg cat gca aga aat aga tac aag gac aaa cct cct gac ttt 164
 Lys Ser Met His Ala Arg Asn Arg Tyr Lys Asp Lys Pro Pro Asp Phe
 5 10 15 20
 gca tat ctg gca tcc aaa tat cca gat ttt aag cag cat gtt cag ata 212
 Ala Tyr Leu Ala Ser Lys Tyr Pro Asp Phe Lys Gln His Val Gln Ile
 25 30 35
 aat ctg aat gga aga gtg agc ctt aat ttt aaa gac ccc gaa gca gtc 260
 Asn Leu Asn Gly Arg Val Ser Leu Asn Phe Lys Asp Pro Glu Ala Val
 40 45 50

aga gct ctg acg tgt act ctc cta agg gaa gat ttt gg
 Arg Ala Leu Thr Cys Thr Leu Leu Arg Glu Asp Phe
 55 60

298

<210> 1857
 <211> 320
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 20..319

<400> 1857
 gagtcattag aagcgcaag atg gcg act gcg gcc gaa acc tcg gct tca gaa 52
 Met Ala Thr Ala Ala Glu Thr Ser Ala Ser Glu
 1 5 10
 ccc gag gct gag tcc aag gct ggg ccc aag gct gas gga gag gag gat 100
 Pro Glu Ala Glu Ser Lys Ala Gly Pro Lys Ala Xaa Gly Glu Glu Asp
 15 20 25
 gag gtt aag gcg gct agg aca agg aga aag gtg tta tcg cgg gct gtg 148
 Glu Val Lys Ala Ala Arg Thr Arg Arg Lys Val Leu Ser Arg Ala Val
 30 35 40
 gcc gct gcg aca tac aag acc atg ggg cca gcg tgg gat cag cag gag 196
 Ala Ala Ala Thr Tyr Lys Thr Met Gly Pro Ala Trp Asp Gln Gln Glu
 45 50 55
 gaa ggc gtg agc gag agc nat ggg gat gag tac gcc atg gct tcc tcc 244
 Glu Gly Val Ser Glu Ser Xaa Gly Asp Glu Tyr Ala Met Ala Ser Ser
 60 65 70 75
 gcg gag agc tcc ccc ggg gag tac gag tgg aat atg acg aag agg agg 292
 Ala Glu Ser Ser Pro Gly Glu Tyr Glu Trp Asn Met Thr Lys Arg Arg
 80 85 90
 aga aaa acc agc tgg aga ttg aga gac t 320
 Arg Lys Thr Ser Trp Arg Leu Arg Asp
 95 100

<210> 1858
 <211> 337
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 31..336

<400> 1858
 ttgggttgct cgctccctta tgtgwgatca atg ctt tca gaa cag ggg ctt ctg 54
 Met Leu Ser Glu Gln Gly Leu Leu
 1 5
 agt gac tgc ggg aac aat tac ttc caa atg acc tcg tgc atc tta tca 102
 Ser Asp Cys Gly Asn Asn Tyr Phe Gln Met Thr Ser Cys Ile Leu Ser
 10 15 20


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ggg agc att cag acc aca ccc cag gtc tct gct ggt ggt tct gaa gcc      150
Gly Ser Ile Gln Thr Thr Pro Gln Val Ser Ala Gly Gly Ser Glu Ala
25                      30                      35                      40
aaa cct ctg atc ttc aca ttt gtc ccc act gtc aga aga cta cca acc      198
Lys Pro Leu Ile Phe Thr Phe Val Pro Thr Val Arg Arg Leu Pro Thr
                      45                      50                      55
cat act cag ttg gct gac acc tct aaa ttc ctt gtt aaa att cca gaa      246
His Thr Gln Leu Ala Asp Thr Ser Lys Phe Leu Val Lys Ile Pro Glu
                      60                      65                      70
gaa tca agt gat aag agt cca gaa act gta aat agg tct aaa tcc aat      294
Glu Ser Ser Asp Lys Ser Pro Glu Thr Val Asn Arg Ser Lys Ser Asn
                      75                      80                      85
gac tac ttg acc ttg aat gct ggg agc caa caa gag aga gac c          337
Asp Tyr Leu Thr Leu Asn Ala Gly Ser Gln Gln Glu Arg Asp
                      90                      95                      100

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<210> 1859
 <211> 415
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 128..415

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<400> 1859
ggcagcgaca gggcagtgcg cgggtgggtg ggtcctagca ggcgggcctg acgggaccaa      60
ggcggcgagg gtctgcggtc gttccctcgg ctgtggaccg ggcgggcacgc acgcgggtgca      120
gggtaac atg gcg gat gcg gaa gta att att ttg cca aag aaa cat aag      169
Met Ala Asp Ala Glu Val Ile Ile Leu Pro Lys Lys His Lys
1                      5                      10
aag aaa aag gag cgg aag tca ttg cca gaa gaa gat gta gcc gaa ata      217
Lys Lys Lys Glu Arg Lys Ser Leu Pro Glu Glu Asp Val Ala Glu Ile
15                      20                      25                      30
caa cac gct gaa gaa ttt ctt atc aaa cct gaa tcc aaa gtt gct aag      265
Gln His Ala Glu Glu Phe Leu Ile Lys Pro Glu Ser Lys Val Ala Lys
                      35                      40                      45
ttg gac acg tct cag tgg ccc ctt ttg cta aag aat ttt gat aag ctg      313
Leu Asp Thr Ser Gln Trp Pro Leu Leu Leu Lys Asn Phe Asp Lys Leu
                      50                      55                      60
aat gta agg aca aca cac tat aca cct ctt gca tgt ggt tca aat cct      361
Asn Val Arg Thr Thr His Tyr Thr Pro Leu Ala Cys Gly Ser Asn Pro
                      65                      70                      75
ctg aag aga gag att ggg gac tat atc agg aca ggt ttc att aat ctt      409
Leu Lys Arg Glu Ile Gly Asp Tyr Ile Arg Thr Gly Phe Ile Asn Leu
                      80                      85                      90
gac aag
Asp Lys
95

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<210> 1860
 <211> 362
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 56..361

<400> 1860

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tgaggagagg agcggccgga rcgsgamact tcgccgaggc acagcagccg gcagg atg      58
                                     Met
                                     1
gcg acc gtg gtg gtg gaa gcc acc gag ccg gag ccg tcc ggc agc atc      106
Ala Thr Val Val Val Glu Ala Thr Glu Pro Glu Pro Ser Gly Ser Ile
                    5                10                15
gcc aac ccg gcg gcg tcc acc tcg cct agc ctg tcg cac cgc ttc ctt      154
Ala Asn Pro Ala Ala Ser Thr Ser Pro Ser Leu Ser His Arg Phe Leu
                    20                25                30
gac agc aag ttc tac ttg ctg gtg gtc gtc ggc gag atc gtg acc gag      202
Asp Ser Lys Phe Tyr Leu Leu Val Val Val Gly Glu Ile Val Thr Glu
                    35                40                45
gag cac ctg cgg cgt gcc atc ggc aac atc gag ctc gga atc cga tca      250
Glu His Leu Arg Arg Ala Ile Gly Asn Ile Glu Leu Gly Ile Arg Ser
                    50                55                60                65
tgg gac aca aac ctg att gaa tgc aac ttg gac caa gaa ctc aaa ctt      298
Trp Asp Thr Asn Leu Ile Glu Cys Asn Leu Asp Gln Glu Leu Lys Leu
                    70                75                80
ttt gta tct cga cac tct gca aga ttc tct cct gaa gtc cca gga caa      346
Phe Val Ser Arg His Ser Ala Arg Phe Ser Pro Glu Val Pro Gly Gln
                    85                90                95
aag atc ctt cat cac c
Lys Ile Leu His His
                    100

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<210> 1861

<211> 360

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 82..360

<400> 1861

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agaccgtagc gacgcgggaa gtccggacgc agtagctccc tgaagcggag gcgaagggga      60
gtttaagccc cancggcggc a atg gcg gag agg ccc gag gac cta aac ctg      111
                                     Met Ala Glu Arg Pro Glu Asp Leu Asn Leu
                                     1                5                10
ccc aat gcc gtg atc acc agg atc atc aag gag gcg ctc ccg gac ggt      159
Pro Asn Ala Val Ile Thr Arg Ile Ile Lys Glu Ala Leu Pro Asp Gly
                    15                20                25
gtc aac atc tcc aag gag gcc cgg agc gcc atc tcc cgc gcc gcc agc      207
Val Asn Ile Ser Lys Glu Ala Arg Ser Ala Ile Ser Arg Ala Ala Ser
                    30                35                40

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gtc ttc gtg ctg tac gcc aca tcc tgt gct aac aac ttt gca atg aaa      255
Val Phe Val Leu Tyr Ala Thr Ser Cys Ala Asn Asn Phe Ala Met Lys
      45      50      55
gga aag cgg aag acg ctg aat gcc agt gat gtg ctc tca gcc atg gaa      303
Gly Lys Arg Lys Thr Leu Asn Ala Ser Asp Val Leu Ser Ala Met Glu
      60      65      70
gag atg gag ttc cag cgg ttc gtt acc cca ttg aaa gaa gct ctg gaa      351
Glu Met Glu Phe Gln Arg Phe Val Thr Pro Leu Lys Glu Ala Leu Glu
      75      80      85      90
gca tat agg      360
Ala Tyr Arg

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<210> 1862
 <211> 403
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 89..403

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<400> 1862
attctgcttt ccggcgctct gccttccggt gcgtcgttta cgccagtttg aaccaaagac      60
gcccaagggtt gaggccgagt tccagagc atg ggg tct cgg ttg tcc cag cct      112
                        Met Gly Ser Arg Leu Ser Gln Pro
                        1      5
ttt gag tcc tat atc act gcg cct ccc ggt acc gcc gcc gcg ccc gcc      160
Phe Glu Ser Tyr Ile Thr Ala Pro Pro Gly Thr Ala Ala Ala Pro Ala
      10      15      20
aaa cct gcg acc cca gct aca ccc gga gcg ccg acc tcc cca gca gaa      208
Lys Pro Ala Thr Pro Ala Thr Pro Gly Ala Pro Thr Ser Pro Ala Glu
      25      30      35      40
cac cgc ctt ttg aag acc tgc tgg agc tgt cgc gtg ctt tct ggg ttg      256
His Arg Leu Leu Lys Thr Cys Trp Ser Cys Arg Val Leu Ser Gly Leu
      45      50      55
ggg ctg atg ggg gcg ggc ggg tac gtg tac tgg gtg gca cgg aag ccc      304
Gly Leu Met Gly Ala Gly Gly Tyr Val Tyr Trp Val Ala Arg Lys Pro
      60      65      70
atg aag atg gga tac ccc ccg agt cca tgg acc att acg cag atg gtc      352
Met Lys Met Gly Tyr Pro Pro Ser Pro Trp Thr Ile Thr Gln Met Val
      75      80      85
atc ggc ctc agt gag aat caa ggc att gcc acc tgg ggt atc gtt gtc      400
Ile Gly Leu Ser Glu Asn Gln Gly Ile Ala Thr Trp Gly Ile Val Val
      90      95      100
atg      403
Met
105

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<210> 1863
 <211> 446
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 62..445

<400> 1863
 gaaggcgcgc ggatttggcc cctcttctca catcagcggg tccaggccca accgacagac 60
 t atg ggg gct ccg gca acc agg cgc tgc gtg gag tgg ctg ctg ggc ctc 109
 Met Gly Ala Pro Ala Thr Arg Arg Cys Val Glu Trp Leu Leu Gly Leu
 1 5 10 15
 tac ttc ctc agc cac atc ccc atc acc ctg ttc atg gac ctg cag gcg 157
 Tyr Phe Leu Ser His Ile Pro Ile Thr Leu Phe Met Asp Leu Gln Ala
 20 25 30
 gtg ctg ccg cgc gag ctc tac cca gtc gag ttt aga aac ctg ctg aag 205
 Val Leu Pro Arg Glu Leu Tyr Pro Val Glu Phe Arg Asn Leu Leu Lys
 35 40 45
 tgg tat gct aag gag ttc aaa gac cca ctg cta cag gag ccc cca gcc 253
 Trp Tyr Ala Lys Glu Phe Lys Asp Pro Leu Leu Gln Glu Pro Pro Ala
 50 55 60
 tgg ttt aag tcc ttt ctg ttt tgc gag ctt gtg ttt cag ctg cct ttc 301
 Trp Phe Lys Ser Phe Leu Phe Cys Glu Leu Val Phe Gln Leu Pro Phe
 65 70 75 80
 ttt ccc att gca acg tat gcc ttc ctc aan gga agc tgc aag tgg att 349
 Phe Pro Ile Ala Thr Tyr Ala Phe Leu Xaa Gly Ser Cys Lys Trp Ile
 85 90 95
 cga act cct gca atc atc tac tct gtt cac acc atg aca acc tta att 397
 Arg Thr Pro Ala Ile Ile Tyr Ser Val His Thr Met Thr Thr Leu Ile
 100 105 110
 ccg ata ctc tcc aca ttt ctg ttt gag gat ttc tcc aaa gcc aag tgg t 446
 Pro Ile Leu Ser Thr Phe Leu Phe Glu Asp Phe Ser Lys Ala Lys Trp
 115 120 125

<210> 1864
 <211> 387
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 193..387

<400> 1864
 agaaacctgg aagtggaaat ctccggcatt caccgttttg gtgaagacgg aggcgggttc 60
 tggacagacg tasgctgtca gggagtgttt acttygcctc cacttctgtt cctcccygcc 120
 ctggtgctgc tccaggtcac atactcgctc tgagccggct tcagcctstc cgcgcagaag 180
 tstcccgagg cc atg gcc gag tam tct tat gcg aag tct acc aag ctt gtg 231
 Met Ala Glu Xaa Ser Tyr Ala Lys Ser Thr Lys Leu Val
 1 5 10
 ctc aag gga acc aag acg aag agg tgg gtc ctg cac ctc cgg cgg gag 279
 Leu Lys Gly Thr Lys Thr Lys Arg Trp Val Leu His Leu Arg Arg Glu
 15 20 25
 cct cct cag ttc ttt tgc gac gca ctc cac ccc cct cga atc cgg tgg 327
 Pro Pro Gln Phe Phe Ser Asp Ala Leu His Pro Pro Arg Ile Arg Trp

30 35 40 45
aag ccg tgg cgc gga gag ccg gct ttg tgg cct ccc agg ctt tgc cct 375
Lys Pro Trp Arg Gly Glu Pro Ala Leu Trp Pro Pro Arg Leu Cys Pro
50 55 60
ggc ccc tgt ccg 387
Gly Pro Cys Pro
65

<210> 1865
<211> 453
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 193..453

<400> 1865
agaaacctgg aagtggaaat ctccgggcatt cagcgtttgg gtgaagacgg aggcggggttc 60
tacagagacg taggctgtca gggagtgttt atttcgcgctc cgcttctgtt tctccgcgcc 120
cctgtgctgc cccgactcac atactcgtcc agaaccggcc tcagcctctc cgcgcagaag 180
tttcccgag cc atg gcc gag tac tcc tac gtg aag tct acc aag ctc gtg 231
Met Ala Glu Tyr Ser Tyr Val Lys Ser Thr Lys Leu Val
1 5 10
ctc aag gga acc aag acg aag agt aag aag aaa aag agc aaa gat aag 279
Leu Lys Gly Thr Lys Thr Lys Ser Lys Lys Lys Lys Ser Lys Asp Lys
15 20 25
aaa aga aaa aga gaa gaa gat gaa gaa acc cag ctt gat att gtt gga 327
Lys Arg Lys Arg Glu Glu Asp Glu Glu Thr Gln Leu Asp Ile Val Gly
30 35 40 45
atc tgg tgg aca gta aca aac ttt ggt gaa att tca gga acc ata gcc 375
Ile Trp Trp Thr Val Thr Asn Phe Gly Glu Ile Ser Gly Thr Ile Ala
50 55 60
att gaa atg gat aag gga acc tat ata cat gca ctc gac aat ggt ctt 423
Ile Glu Met Asp Lys Gly Thr Tyr Ile His Ala Leu Asp Asn Gly Leu
65 70 75
ttt acc ctg gga gct cca cac aaa gaa gtt 453
Phe Thr Leu Gly Ala Pro His Lys Glu Val
80 85

<210> 1866
<211> 484
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 169..483

<400> 1866
cttccttccct gcgcctttat ctgcatccgg gtccgtggga ttcgcgctcc actggtcagc 60
tggggtcgct ctccgggtggt tgggtgttgc ttgytcccgc tgttccagcg tcgaagaacc 120

70	75	80	
agt act cgc cgc tgc cct gca gca aaa tca tcc agn ggg cgg agg agc			404
Ser Thr Arg Arg Cys Pro Ala Ala Lys Ser Ser Xaa Gly Arg Arg Ser			
85	90	95	
tgg tgg ggc agg agg tgc tct aca agc t			432
Trp Trp Gly Arg Arg Cys Ser Thr Ser			
100	105		

<210> 1868

<211> 447

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 84..446

<400> 1868	
gagctcagtg ggcgtcgcgc gaaggctaag ggagtgtggc gggcggtccc gggagccaac	60
atgcctcggg atgcgcastg gtc atg ggc ccc gcg ggc agn ggg aag agc acc	113
Met Gly Pro Ala Gly Xaa Gly Lys Ser Thr	
1 5 10	
tac tgt gcc acc atg gtc cag cac tgt gaa gcc ctc aac cgg tct gtc	161
Tyr Cys Ala Thr Met Val Gln His Cys Glu Ala Leu Asn Arg Ser Val	
15 20 25	
caa gtt gta aac ctg gat cca gca gca gaa cac ttc aac tac tcc gtg	209
Gln Val Val Asn Leu Asp Pro Ala Ala Glu His Phe Asn Tyr Ser Val	
30 35 40	
atg gct gac atc cgg gaa ctg atc gag gtg gat gat gta atg gag gat	257
Met Ala Asp Ile Arg Glu Leu Ile Glu Val Asp Asp Val Met Glu Asp	
45 50 55	
gat tct ctg cga ttc ggt ccc aac gga gga ttg gta ttt tgc atg gag	305
Asp Ser Leu Arg Phe Gly Pro Asn Gly Gly Leu Val Phe Cys Met Glu	
60 65 70	
tac ttt gcc aat aat ttt gac tgg ctg gag aac tgt ctt ggc cat gta	353
Tyr Phe Ala Asn Asn Phe Asp Trp Leu Glu Asn Cys Leu Gly His Val	
75 80 85 90	
gag gac gac tat atc ctt ttt gat tgt cca ggt cag att gag ttg tac	401
Glu Asp Asp Tyr Ile Leu Phe Asp Cys Pro Gly Gln Ile Glu Leu Tyr	
95 100 105	
act cam ctg cct gtg atg aac agc tgg tcc agc agc tcg agc agt g	447
Thr Xaa Leu Pro Val Met Asn Ser Trp Ser Ser Ser Ser Ser Ser	
110 115 120	

<210> 1869

<211> 442

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 245..442

<400> 1869
 agccaagccc cagcatgttg tgttctgtcc tctggctggc agattcacgc cacaacagtt 60
 tattcatcca catgcttttt ggykactctt catcacgtat ttgggcttag atcttctggt 120
 gcctccctcg gcgtgctacc cataaggteg aaagaaaagt aaaacagaaa ggggctcata 180
 ctcatcttat gggagagaat caaacttaca gggttgccac cagcagagtc tccttggagg 240
 tgac atg gat atg ggc aac cca gga acc ctt tcg ccc acc aaa cct ggt 289

Met Asp Met Gly Asn Pro Gly Thr Leu Ser Pro Thr Lys Pro Gly
 1 5 10 15
 tcc cag tac tat cag tat tct agc aat aat ccc cga agg agg cct ctt 337
 Ser Gln Tyr Tyr Gln Tyr Ser Ser Asn Asn Pro Arg Arg Arg Pro Leu
 20 25 30
 cac agt agt gcc atg gag gta cag aca aag aaa gtt cga aaa gtt cct 385
 His Ser Ser Ala Met Glu Val Gln Thr Lys Lys Val Arg Lys Val Pro
 35 40 45
 cca ggt ttg cca tct tca gtc tat gct cca tca gca agc act gcc gac 433
 Pro Gly Leu Pro Ser Ser Val Tyr Ala Pro Ser Ala Ser Thr Ala Asp
 50 55 60
 tac aat agg 442
 Tyr Asn Arg
 65

<210> 1870
 <211> 393
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 196..393

<400> 1870
 acaaagattt cctctgctga gtaagcgtga ggccccttaa cttgtgaaag catcatccag 60
 accgtgtgag tctgtctgtg tatgtgcaga acacagaccc tcctttctcc gtttgtgggg 120
 aatacttccc tcgggtgaaa ctgaagttaa tttttttttt tttccaaaca caagcagagt 180
 ctcttggagg gtgac atg gat atg ggc aac cca gga acc ctt tcg ccc acc 231
 Met Asp Met Gly Asn Pro Gly Thr Leu Ser Pro Thr
 1 5 10
 aaa cct ggt tcc cag tac tat cag tat tct agc aat aat ccc cga agg 279
 Lys Pro Gly Ser Gln Tyr Tyr Gln Tyr Ser Ser Asn Asn Pro Arg Arg
 15 20 25
 agg cct ctt cac agt agt gcc atg gag gta cag aca aag aaa gtt cga 327
 Arg Pro Leu His Ser Ser Ala Met Glu Val Gln Thr Lys Lys Val Arg
 30 35 40
 aaa gtt cct cca ggt ttg cca tct tca gtc tat gct cca tca gca agc 375
 Lys Val Pro Pro Gly Leu Pro Ser Ser Val Tyr Ala Pro Ser Ala Ser
 45 50 55 60
 act gcc gac tac aat agg 393
 Thr Ala Asp Tyr Asn Arg
 65

<210> 1871
 <211> 412

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 215..412

<400> 1871
agtcagtaaa agttgattac aagtaacgat aaagttagat ttttagtact taattttaaa 60
atttcctttat taaatagtaa atttggtctt aatataaatg gtactatcta ctcttggttt 120
attgcatatc agaaataatt aaaagamcaa tgtgttcaat gcagagtata atcaagcgat 180
ttatatatta tggcagagtc tccttgaggg tgac atg gat atg ggc aac cca gga 235
Met Asp Met Gly Asn Pro Gly
1 5
acc ctt tcg ccc acc aaa cct ggt tcc cag tac tat cag tat tct agc 283
Thr Leu Ser Pro Thr Lys Pro Gly Ser Gln Tyr Tyr Gln Tyr Ser Ser
10 15 20
aat aat ccc cga agg agg cct ctt cac agt agt gcc atg gag gta cag 331
Asn Asn Pro Arg Arg Arg Pro Leu His Ser Ser Ala Met Glu Val Gln
25 30 35
aca aag aaa gtt cga aaa gtt cct cca ggt ttg cca tct tca gtc tat 379
Thr Lys Lys Val Arg Lys Val Pro Pro Gly Leu Pro Ser Ser Val Tyr
40 45 50 55
gct cca tca gca agc act gcc gac tac aat agg 412
Ala Pro Ser Ala Ser Thr Ala Asp Tyr Asn Arg
60 65

<210> 1872
<211> 433
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 64..432

<400> 1872
atacagtcac cctagcagtc cccgctgaag tggagcaggt acagtcacag ctgtggggac 60
agc atg ctg gcc aag ggt ctt ccc cca cgc tma gtc ctg gkc aaa ggc 108
Met Leu Ala Lys Gly Leu Pro Pro Arg Xaa Val Leu Xaa Lys Gly
1 5 10 15
tgc cag acc ttt ctg agt gcc ccc agg gag ggg ctg ggg cgt ctc agg 156
Cys Gln Thr Phe Leu Ser Ala Pro Arg Glu Gly Leu Gly Arg Leu Arg
20 25 30
gtg cyc act ggc gag gga gct ggc atc tcc acc cgc agt cct cgc ccc 204
Val Xaa Thr Gly Glu Gly Ala Gly Ile Ser Thr Arg Ser Pro Arg Pro
35 40 45
ttc aat gag atc ccc tct cct ggt gac aat ggc tgg cta aac ctg tac 252
Phe Asn Glu Ile Pro Ser Pro Gly Asp Asn Gly Trp Leu Asn Leu Tyr
50 55 60
cat ttc tgg agg gag acg ggc aca cac aaa gtc cac ctt cac cat gtc 300
His Phe Trp Arg Glu Thr Gly Thr His Lys Val His Leu His His Val

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65		70		75		
cag aat ttc cag aag tat ggc ccg att tac agg gag aag ctc ggc aac						348
Gln Asn Phe Gln Lys Tyr Gly Pro Ile Tyr Arg Glu Lys Leu Gly Asn						
80		85		90		95
gtg gag tcg gtt tat gtc atc gac cct gra gat gtg gcg ktc tct tta						396
Val Glu Ser Val Tyr Val Ile Asp Pro Xaa Asp Val Ala Xaa Ser Leu						
	100		105		110	
agt ccg rgg gcc caa ccc aga acg att sct cat scc g						433
Ser Pro Xaa Ala Gln Pro Arg Thr Ile Xaa His Xaa						
	115		120			

<210> 1873
 <211> 457
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 162..455

<400> 1873		
aaatcgattt tcaggttgta cagtcgagca gttttggtgg agagggggcc ctagaaacct		60
gtagcgagcgt ggggtgggcg cccagaggt tagttgaccc gaagagcaag gaagaggcga		120
tcatcatagt ggaggatgag gatgaggatg agcgggagag t atg agg agc agc agg		176
	Met Arg Ser Ser Arg	
	1 5	
agg cgg cgg cgg cgg cgg agg agg aag cag agg aag gtg aag agg gaa		224
Arg Arg Arg Arg Arg Arg Arg Arg Lys Gln Arg Lys Val Lys Arg Glu		
	10 15 20	
agc aga gag aga aat gcc gag agg atg gag agc atc ctg cag gca ctg		272
Ser Arg Glu Arg Asn Ala Glu Arg Met Glu Ser Ile Leu Gln Ala Leu		
	25 30 35	
gag gat att cag ctg gat ctg gag gca gtg aac atc aag gca ggc aaa		320
Glu Asp Ile Gln Leu Asp Leu Glu Ala Val Asn Ile Lys Ala Gly Lys		
	40 45 50	
gcc ttc ctg cgt ctc aag cgc aag ttc atc cag atg cga aga ccc ttc		368
Ala Phe Leu Arg Leu Lys Arg Lys Phe Ile Gln Met Arg Arg Pro Phe		
	55 60 65	
ctg gag cgc aga gac ctc atc atc cag cat atc cca ggc ttc tgg gtc		416
Leu Glu Arg Arg Asp Leu Ile Ile Gln His Ile Pro Gly Phe Trp Val		
	70 75 80 85	
aaa gca ttc ctc aac cac ccc aga att tca att ttg atc aa		457
Lys Ala Phe Leu Asn His Pro Arg Ile Ser Ile Leu Ile		
	90 95	

<210> 1874
 <211> 828
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 674..826

<400> 1874

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acaagcgctc cgtcccttct agaggcaggc agagggaaga gaaaggggtct gttgtttttc 60
tctcctgttt ctcgctccct ctctgctgat cacaaaagctg ctgaccgggt cagaaagycc 120
tgatggaaat ccaccagcgc tgggcaggcc cctcctcctc cagggagctt gtccttgcc 180
aatttttctt cgtcctgatg agaacaaaaa agagagagag aagaaaagaa aaaccacaaa 240
cttcctttga aaaccagctt gtagtcaggg cccggagcgc atgccataga ctcggcgact 300
caggaatcct gaagactctc tgagcgacct ggagcacctt ggctgtgtcc ctgcctgcct 360
tcaccctcct ccagtgcctc cagtactggg cgtgagtccg gaagtggcca caaccagcc 420
tggaccgtcg cttataaagc tgtgtaaacc tgtataagct caggcggtga cagctggaag 480
gcagctggca ctggcagccc ccttcattgc acctatctcc cccatctcat tgccacggct 540
gaaccctcct tctcaatctt ggaacagcay ccccttcttt aaggctcactc ttttgcaccc 600
cargccctgg cttagncaag tccctgaggt tagtaaacac cttcagtgcc cctcagmcga 660
gtcccttttg acc atg gaa tac cat cag cct gag gat cca gcc cct ggt 709

```

Met Glu Tyr His Gln Pro Glu Asp Pro Ala Pro Gly

1 5 10

```

aag gcc ggg act gca gaa gca gtc atc cct gaa aac cat gag gtt ctg 757
Lys Ala Gly Thr Ala Glu Ala Val Ile Pro Glu Asn His Glu Val Leu

```

```

15 20 25
gca ggc cca gat gag cac cct cag gac aca gat gca aga gat gct gat 805
Ala Gly Pro Asp Glu His Pro Gln Asp Thr Asp Ala Arg Asp Ala Asp

```

```

30 35 40
ggg gag gct aga gaa acg gga gc 828
Gly Glu Ala Arg Glu Thr Gly
45 50

```

<210> 1875

<211> 533

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 85..531

<400> 1875

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aagtgaagc ggttgccag tgaaggctag acccggttta ctggaattgc tctggcgatc 60
gaggggtcct agtacaccgc aatc atg tct att atg tcc tat aac gga ggg 111

```

Met Ser Ile Met Ser Tyr Asn Gly Gly

1 5

```

gcc gtc atg gcc atg aag ggg aag aac tgt gtg gcc atc gct gca gac 159
Ala Val Met Ala Met Lys Gly Lys Asn Cys Val Ala Ile Ala Ala Asp

```

```

10 15 20 25
agg cgc ttc ggg atc cag gcc cag atg gtg acc acg gac ttc cag aag 207
Arg Arg Phe Gly Ile Gln Ala Gln Met Val Thr Thr Asp Phe Gln Lys

```

```

30 35 40
atc ttt ccc atg ggt gac cgg ctg tac atc ggt ctg gcc ggg ctc gcc 255
Ile Phe Pro Met Gly Asp Arg Leu Tyr Ile Gly Leu Ala Gly Leu Ala

```

```

45 50 55
act gac gtc cag aca gtt gcc cag cgc ctc aag ttc cgg ctg aac ctg 303
Thr Asp Val Gln Thr Val Ala Gln Arg Leu Lys Phe Arg Leu Asn Leu

```

60 65 70

tat gag ttg aag gaa ggt cgg cag atc aaa cct tat acc ctc atg agc	351
Tyr Glu Leu Lys Glu Gly Arg Gln Ile Lys Pro Tyr Thr Leu Met Ser	
75 80 85	
atg gtg gcc aac ctc ttg tat gag aaa cgg ttt ggc cct tac tac act	399
Met Val Ala Asn Leu Leu Tyr Glu Lys Arg Phe Gly Pro Tyr Tyr Thr	
90 95 100 105	
gag cca gtc att gcc ggg ttg gac ccg aag acc ttt aag ccc ttc att	447
Glu Pro Val Ile Ala Gly Leu Asp Pro Lys Thr Phe Lys Pro Phe Ile	
110 115 120	
tgc tct cta gac ctc atc ggc tgc ccc atg gtg act gat gac ttt gtg	495
Cys Ser Leu Asp Leu Ile Gly Cys Pro Met Val Thr Asp Asp Phe Val	
125 130 135	
gtc agt ggc acc tgc gcc gaa caa atg tac gga atg tg	533
Val Ser Gly Thr Cys Ala Glu Gln Met Tyr Gly Met	
140 145	

<210> 1876
 <211> 441
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 174..440

<400> 1876	
atcagcaata tacaattata aaggcccaaa attaaaaaaa gagagaccga aatstcccc	60
tcccaaaatc gctccattac ataaatcggg gggggtgcag gaggggggggt cccttccgat	120
cctccctcct gacgcccccc ccargmaggs cccctcccc accattgaaa gcc atg	176
Met	
1	
aat ttt gaa ttt gag agg gag att ggg ttt ata aac agc cag ccg tcg	224
Asn Phe Glu Phe Glu Arg Glu Ile Gly Phe Ile Asn Ser Gln Pro Ser	
5 10 15	
ctc gcc gag tgt ctg act tcc ttc ccc gct gtc ttg gag aca ttt caa	272
Leu Ala Glu Cys Leu Thr Ser Phe Pro Ala Val Leu Glu Thr Phe Gln	
20 25 30	
act tca tca atc aag gag tcg aca tta att cct cct cct cct ttc	320
Thr Ser Ser Ile Lys Glu Ser Thr Leu Ile Pro Pro Pro Pro Phe	
35 40 45	
gag caa acc ttc ccc agc ctc cag ccc ggc gcc tcc acc ctt cag aga	368
Glu Gln Thr Phe Pro Ser Leu Gln Pro Gly Ala Ser Thr Leu Gln Arg	
50 55 60 65	
ccc agg agc caa aag cga gcc gaa gat ggg cct gct ctg cng ccg cca	416
Pro Arg Ser Gln Lys Arg Ala Glu Asp Gly Pro Ala Leu Xaa Pro Pro	
70 75 80	
ccg ccg cng cna ntc ccc gyt gcc c	441
Pro Pro Xaa Xaa Xaa Pro Xaa Ala	
85	

<210> 1877
 <211> 394
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 70..393

<400> 1877

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gtggaggaac ttccggcagc ggcagctcaa gtggccaagg caagatgggt caaagtcaga      60
gtgggtggtc atg gtc ctg gag gtg gca aga agg atg aca agg acc atg acc      111
      Met Val Leu Glu Val Ala Arg Arg Met Thr Arg Thr Met Thr
            1             5             10
acc tct ctg tac cga gct cag cag atc atc cag ctc aac atc caa gct      159
Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln Leu Asn Ile Gln Ala
15             20             25             30
tcc cct aaa gta cga ctg agc ttg gca aac gaa gct ctg ctg ccc acc      207
Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu Ala Leu Leu Pro Thr
            35             40             45
ctc atc tgc gac att gct ggc tat tac cct gga tgt ggt ggt gac gtg      255
Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Gly Cys Gly Gly Asp Val
            50             55             60
gac ccg aga gga gct ggg tgg atc ccc agc cca agt ctc tgg tgc ctc      303
Asp Pro Arg Gly Ala Gly Trp Ile Pro Ser Pro Ser Leu Trp Cys Leu
            65             70             75
ctt ctc cag cct cag gca aag cgt ggc agg cac cta cag cat ctc ctc      351
Leu Leu Gln Pro Gln Ala Lys Arg Gly Arg His Leu Gln His Leu Leu
            80             85             90
ctc tct cam cgc aga acc tgg ctc tgc agg tgc cac tta cac c      394
Leu Ser Xaa Arg Arg Thr Trp Leu Cys Arg Cys His Leu His
            95             100             105
```

<210> 1878

<211> 214

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 39..212

<400> 1878

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agcgggactg gaacctagta cacttcggca gttgagaa atg act tac cag gac aaa      56
      Met Thr Tyr Gln Asp Lys
            1             5
tac tgc ttc tgg ctc gat ggt gct gcc cat gaa cat ccg ccg gct ctg      104
Tyr Cys Phe Trp Leu Asp Gly Ala Ala His Glu His Pro Pro Ala Leu
            10             15             20
aga acg agc tgc act gtc agt gag aaa ccg tgg gca ctg aga aac gag      152
Arg Thr Ser Cys Thr Val Ser Glu Lys Pro Trp Ala Leu Arg Asn Glu
            25             30             35
cgg act gca act gat aac tgc cca ccc agt gcc act acg aca aag tgc      200
Arg Thr Ala Thr Asp Asn Cys Pro Pro Ser Ala Thr Thr Thr Lys Cys
            40             45             50
```

tgc tgg cac tac tc
Cys Trp His Tyr
55

214

<210> 1879
<211> 457
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 194..457

<400> 1879
gtgccctgcg cctcagcccg cgcgctcgca gcttctcgct ctgcctgcc tgcccgcctcc 60
cttgcttgct cgcgctttcg ctgcctctct cctcgaggat cgaggggact ctgaccacag 120
cctgtggctg ggaagggaga cagaggcggc ggcggctcag gggaaacgag gctgcagtgg 180
tggtagtagg aag atg tcg ggc gag gac gag caa cag gag caa act atc 229
Met Ser Gly Glu Asp Glu Gln Gln Glu Gln Thr Ile
1 5 10
gct gag gac ctg gtc gtg acc aag tat aag atg ggg ggc gac atc gcc 277
Ala Glu Asp Leu Val Val Thr Lys Tyr Lys Met Gly Gly Asp Ile Ala
15 20 25
aac agg gta ctt cgg tcc ttg gtg gaa gca tct agc tca ggt gtg tcg 325
Asn Arg Val Leu Arg Ser Leu Val Glu Ala Ser Ser Ser Gly Val Ser
30 35 40
gta ctg agc ctg tgt gag aaa ggt gat gcc atg att atg gaa gaa aca 373
Val Leu Ser Leu Cys Glu Lys Gly Asp Ala Met Ile Met Glu Glu Thr
45 50 55 60
ggg aaa atc ttc aag aaa gaa aag gaa atg aag aaa ggt att gct ttt 421
Gly Lys Ile Phe Lys Lys Glu Lys Glu Met Lys Lys Gly Ile Ala Phe
65 70 75
ccc acc agc att tcg gta aat aac tgt gta tgt cac 457
Pro Thr Ser Ile Ser Val Asn Asn Cys Val Cys His
80 85

<210> 1880
<211> 486
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 112..486

<400> 1880
accaccgctg ctccctcarga ggcgcctcac cagcctccac accccttgcg cnygcagaaa 60
cgcgctggc cctgagctgt caccaccgac actctccagg ctccggacac g atg cag 117
Met Gln
1
gcc atc aag tgt gtg gtg gtg gga gat ggg gcc gtg ggc aag acc tgc 165
Ala Ile Lys Cys Val Val Val Gly Asp Gly Ala Val Gly Lys Thr Cys

5	10	15	
ctt ctc atc agc tac acc	acc aac gcc ttt ccc	gga gag tac atc ccc	213
Leu Leu Ile Ser Tyr Thr	Thr Asn Ala Phe Pro	Gly Glu Tyr Ile Pro	
20	25	30	
acc gtg ttt gac aac tat	tca gcc aat gtg atg	gtg gac agc aag cca	261
Thr Val Phe Asp Asn Tyr	Ser Ala Asn Val Met	Val Asp Ser Lys Pro	
35	40	45	50
gtg aac ctg ggg ctg tgg	gac act gct ggg cag	gag gac tac gac cgt	309
Val Asn Leu Gly Leu Trp	Asp Thr Ala Gly Gln	Glu Asp Tyr Asp Arg	
	55	60	65
ctc cgg ccg ctc tcc tat	cca cag acg gac gtc	ttc ctc atc tgc ttc	357
Leu Arg Pro Leu Ser Tyr	Pro Gln Thr Asp Val	Phe Leu Ile Cys Phe	
	70	75	80
tcc ctc gtc agc cca gcc	tct tat gag aac gtc	cgc gcc aag tgg ttc	405
Ser Leu Val Ser Pro Ala	Ser Tyr Glu Asn Val	Arg Ala Lys Trp Phe	
	85	90	95
cca gaa gtg cgg cac cac	tgc ccc agc aca ccc	atc atc ctg gtg ggc	453
Pro Glu Val Arg His His	Cys Pro Ser Thr Pro	Ile Ile Leu Val Gly	
	100	105	110
acc aag ctg gac ctg cgg	gac gac aag gac acc		486
Thr Lys Leu Asp Leu Arg	Asp Asp Lys Asp Thr		
115	120	125	

<210> 1881
 <211> 348
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 150..347

<400> 1881	
atttttttcg gacctgcgac ttccgaacaa ccctggcagg	aggagcggcg ttcagccggg
ggaggcctga agaaacgctc cggggcccag tggtctctacc	cctgctcctg cccgaccctg
ccgcctccct cacggagcca gcggccgga	atg cag aca tca gaa cgt gag ggg
	Met Gln Thr Ser Glu Arg Glu Gly
	1 5
agt ggg ccg gag ctg agc ccc agc gtg atg ccc	gag gct ccc ctg gag
Ser Gly Pro Glu Leu Ser Pro Ser Val Met Pro	Glu Ala Pro Leu Glu
10	15 20
tct cca cct ttt cct acc aag tcc cca gcg ttt	gac ctt ttc aac ttg
Ser Pro Pro Phe Pro Thr Lys Ser Pro Ala Phe	Asp Leu Phe Asn Leu
25	30 35 40
gtt ctc tcc tac aag agg ctg gag atc tac	ctg gaa ccc ttg aag gat
Val Leu Ser Tyr Lys Arg Leu Glu Ile Tyr	Leu Glu Pro Leu Lys Asp
	45 50 55
gca ggt gat ggt gtk cga tac ttg ctc agg t	
Ala Gly Asp Gly Val Arg Tyr Leu Leu Arg	
60	65

<210> 1882
 <211> 372

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 138..371

<400> 1882
 ttgtcaaatt aaggggtgtca ttgtgtttgtg ctaaacgctg ggaggggtaca agttgggtcat 60
 tcctaaatct gtgtgtgaga matggcangg tctagtttgg gcattgtgat tgcattgcag 120
 attactagga gaaggga atg gtg ggt aca ccg gta gtg ctc ttt tgt tct 170
 Met Val Gly Thr Pro Val Val Leu Phe Cys Ser
 1 5 10
 tgc ttc gtt ttt tta aac ttk aac ttt act tcg tta gat ttc ata ata 218
 Cys Phe Val Phe Leu Asn Xaa Asn Phe Thr Ser Leu Asp Phe Ile Ile
 15 20 25
 ctt tct tgg cat tct agt aag agg acc ctg agg tgg gag ttg tgg ggg 266
 Leu Ser Trp His Ser Ser Lys Arg Thr Leu Arg Trp Glu Leu Trp Gly
 30 35 40
 acg ggg aga agg gga cag ctt ggc acc ggt ccc gtg ggc gtt gca gtg 314
 Thr Gly Arg Arg Gly Gln Leu Gly Thr Gly Pro Val Gly Val Ala Val
 45 50 55
 tgg ggg atg ggg gta tgc agc ttg gca ctg gta ctg gga ggg atg agg 362
 Trp Gly Met Gly Val Cys Ser Leu Ala Leu Val Leu Gly Gly Met Arg
 60 65 70 75
 gtg aag aar g 372
 Val Lys Lys

<210> 1883
<211> 487
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 109..486

<400> 1883
 cttcccagtt aaaagtgttg gcccgcggcg cgcggcctct tcctgtctgt accagggcgg 60
 cgcgtggtct acgccgagtg acagagacgc tcaggctgtg ttctcagg atg acc gag 117
 Met Thr Glu
 1
 tgg gag aca gca gca cca gcg gtg gca gag acc cca gac atc aag ctc 165
 Trp Glu Thr Ala Ala Pro Ala Val Ala Glu Thr Pro Asp Ile Lys Leu
 5 10 15
 ttt ggg aag tgg agc acc gat gat gtg cag atc aat gac att tcc ctg 213
 Phe Gly Lys Trp Ser Thr Asp Asp Val Gln Ile Asn Asp Ile Ser Leu
 20 25 30 35
 cag gat tac att gca gtg aag gag aag tat gcc aag tac ctg cct cac 261
 Gln Asp Tyr Ile Ala Val Lys Glu Lys Tyr Ala Lys Tyr Leu Pro His
 40 45 50
 agt gca ggg cgg tat gcc gcc aaa cgc ttc cgc aaa gct cag tgt ccc 309

Ser	Ala	Gly	Arg	Tyr	Ala	Ala	Lys	Arg	Phe	Arg	Lys	Ala	Gln	Cys	Pro	
			55					60					65			
att	gtg	gag	cgc	ctc	act	aac	tcc	atg	atg	atg	cac	ggc	cgc	aac	aac	357
Ile	Val	Glu	Arg	Leu	Thr	Asn	Ser	Met	Met	Met	His	Gly	Arg	Asn	Asn	
			70					75					80			
ggc	aag	aag	ctc	atg	act	gtg	cgc	atc	gtc	aag	cat	gcc	ttc	gag	atc	405
Gly	Lys	Lys	Leu	Met	Thr	Val	Arg	Ile	Val	Lys	His	Ala	Phe	Glu	Ile	
			85					90				95				
ata	cac	ctg	ctc	aca	ggc	gag	aac	cct	ctg	cag	gtc	ctg	gtg	aac	gcc	453
Ile	His	Leu	Leu	Thr	Gly	Glu	Asn	Pro	Leu	Gln	Val	Leu	Val	Asn	Ala	
100					105					110					115	
atc	atc	aac	aag	tgg	tcc	ccg	gga	gga	cwc	gca	t					487
Ile	Ile	Asn	Lys	Trp	Ser	Pro	Gly	Gly	Xaa	Ala						
				120						125						

<210> 1884
 <211> 547
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 31..546

<400> 1884	
agctgcagtc tgggagtcctt tggagtaaga atg gcc ttg gaa ggg atg agc aaa	54
Met Ala Leu Glu Gly Met Ser Lys	
1 5	
cgg aag aga aag aga agt gtc cag gag gga gag aat cct gac gac ggc	102
Arg Lys Arg Lys Arg Ser Val Gln Glu Gly Glu Asn Pro Asp Asp Gly	
10 15 20	
gtt cgc ggg agt ccg ccg gaa gac tac agg ctt gga cag gtc gcc agt	150
Val Arg Gly Ser Pro Pro Glu Asp Tyr Arg Leu Gly Gln Val Ala Ser	
25 30 35 40	
agc tta ttt cgc ggc gaa cac cat tcc aga ggt ggc acc ggt cgg ctg	198
Ser Leu Phe Arg Gly Glu His His Ser Arg Gly Gly Thr Gly Arg Leu	
45 50 55	
gcg tcc ctc ttc agt tct ctg gag ccc cag att caa ccc gtg tac gtg	246
Ala Ser Leu Phe Ser Ser Leu Glu Pro Gln Ile Gln Pro Val Tyr Val	
60 65 70	
cct gtg cct aaa caa acc atc aaa aaa acg aaa cgg aat gag gag gaa	294
Pro Val Pro Lys Gln Thr Ile Lys Lys Thr Lys Arg Asn Glu Glu Glu	
75 80 85	
gaa agt aca tcc cag att gaa aga cca ctt tcg caa gaa cct gcc aaa	342
Glu Ser Thr Ser Gln Ile Glu Arg Pro Leu Ser Gln Glu Pro Ala Lys	
90 95 100	
aaa gtg aaa gcg aag aag awa cac act aac gca gaa aaa aag ttg gca	390
Lys Val Lys Ala Lys Lys Xaa His Thr Asn Ala Glu Lys Lys Leu Ala	
105 110 115 120	
gac agg gaa agc gct cta gcg agt gct gat tta gaa gar kna att cac	438
Asp Arg Glu Ser Ala Leu Ala Ser Ala Asp Leu Glu Glu Xaa Ile His	
125 130 135	
cag aaa caa ggg cag aaa agg aaa aat tct caa cct ggt gtt aaa gta	486

004220"666T550

Gln	Lys	Gln	Gly	Gln	Lys	Arg	Lys	Asn	Ser	Gln	Pro	Gly	Val	Lys	Val	
			140					145					150			
gca	gat	aga	ara	ata	ctt	gat	gac	aca	gaa	gac	aca	gtt	gtc	agt	caa	534
Ala	Asp	Arg	Xaa	Ile	Leu	Asp	Asp	Thr	Glu	Asp	Thr	Val	Val	Ser	Gln	
		155					160					165				
aga	aag	aaa	att	c												547
Arg	Lys	Lys	Ile													
		170														

<210> 1885
 <211> 330
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 31..330

<400> 1885																	
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					Met	Ala	Leu	Glu	Gly	Met	Ser	Lys					
					1				5								
cgg	aag	aga	aag	aga	agt	gtc	cag	gag	gga	gag	aat	cct	gac	gac	ggc	102	
Arg	Lys	Arg	Lys	Arg	Ser	Val	Gln	Glu	Gly	Asn	Pro	Asp	Asp	Gly			
	10				15				20								
gtt	cgc	ggg	agt	ccg	ccg	gaa	gac	tac	agg	ctt	gga	cag	gtc	gcc	agt	150	
Val	Arg	Gly	Ser	Pro	Pro	Glu	Asp	Tyr	Arg	Leu	Gly	Gln	Val	Ala	Ser		
	25				30				35					40			
agc	tta	ttt	cgc	ggc	gaa	cac	cat	tcc	aga	ggg	ggc	acc	ggg	cgg	ctg	198	
Ser	Leu	Phe	Arg	Gly	Glu	His	His	Ser	Arg	Gly	Gly	Thr	Gly	Arg	Leu		
			45					50					55				
gcg	tcc	ctc	ttc	agt	tct	ctg	gag	cyc	cag	att	caa	ccc	gtg	tac	gtg	246	
Ala	Ser	Leu	Phe	Ser	Ser	Leu	Glu	Xaa	Gln	Ile	Gln	Pro	Val	Tyr	Val		
		60					65					70					
cct	gtg	cct	aaa	gta	agt	cac	tgg	gct	ttc	ttc	ccg	aat	agc	tcg	tta	294	
Pro	Val	Pro	Lys	Val	Ser	His	Trp	Ala	Phe	Phe	Pro	Asn	Ser	Ser	Leu		
		75					80					85					
gaa	cca	ctt	aca	tac	aaa	gca	atc	ttc	tta	cct	acc					330	
Glu	Pro	Leu	Thr	Tyr	Lys	Ala	Ile	Phe	Leu	Pro	Thr						
		90				95					100						

<210> 1886
 <211> 462
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 40..462

<400> 1886																	
gcgcggctgg	tgccgcgccg	cccgaaaggt	gagccagcc	atg	aga	ggg	tat	ctt									54

[illegible]

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<210> 1887
<211> 488
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 120..488
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<400>	1887	
aagcgcgcac	ctttgcgcac	gcgcacgaac
gcacggccgc	gcacatctgt	cttgctggaa
60		
gcttttctc	agaggttgag	cggtttgcac
aatgtcggaa	atggctgagt	tgtccgcag
119		
atg gag gta	ggc agc ggg	agc cgg gag
cta tcc ctg	cgt ccc tcc	cgc
167		
Met Glu Val	Gly Ser Gly	Ser Arg Glu
Leu Ser Leu	Arg Pro Ser	Arg
1	5	10
15		
agc ggg gcc	caa cag ctc	gag gag gaa
ggc cca atg	gag gag gag	gag gag
215		
Ser Gly Ala	Gln Gln Leu	Glu Glu Glu
Gly Pro Met	Glu Glu Glu	Glu Glu
20	25	30
gcc cag cca	atg gcg gcg	cca gag
ggg aaa cgg	agc ctt gct	aac ggg
263		
Ala Gln Pro	Met Ala Ala	Pro Glu Gly
Lys Arg Ser	Leu Ala Asn	Gly
35	40	45
ccc aac gct	ggg gag cag	cca ggc
cag gtg gcg	ggc gca gac	ttc gag
311		
Pro Asn Ala	Gly Glu Gln	Pro Gly Gln
Val Ala Gly	Ala Asp Phe	Glu

50	55	60	
agc gag gac gag ggc	gag gaa ttt gat gac	tgg gag gac gac tac gac	359
Ser Glu Asp Glu Gly	Glu Glu Phe Asp Asp	Trp Glu Asp Asp Tyr Asp	
65	70	75	80
tat ccc gaa gag gag	cag ctc agt ggt gcc	ggc tac aga gta tca gcg	407
Tyr Pro Glu Glu Glu	Gln Leu Ser Gly Ala	Gly Tyr Arg Val Ser Ala	
	85	90	95
snt ctt gaa gaa gcc	gac aag atg ttt ctg	aga aca aga gaa cca gcc	455
Xaa Leu Glu Glu Ala	Asp Lys Met Phe Leu	Arg Thr Arg Glu Pro Ala	
	100	105	110
tgg atg gcg ggt ttc	aga tgc att atg aga		488
Trp Met Ala Gly Phe	Arg Cys Ile Met Arg	Arg	
	115	120	

<210> 1888
 <211> 492
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 28..492

<400> 1888	
agaatcggtt tgggtctggt cgccaag atg gcg tcc tcc gcc tcc gcc cgg act	54
Met Ala Ser Ser Ala Ser Ala Arg Thr	
1 5	
ccg gca ggg aag cga gtg ata aat cag gaa gaa ttg cgg cgg tta atg	102
Pro Ala Gly Lys Arg Val Ile Asn Gln Glu Glu Leu Arg Arg Leu Met	
10 15 20 25	
aag gag aag cag cgt ctg agc acc agt cgg aaa cgg ata gaa tct cca	150
Lys Glu Lys Gln Arg Leu Ser Thr Ser Arg Lys Arg Ile Glu Ser Pro	
30 35 40	
ttc gcg aag tac aac cgt ttg ggg cag ctg agt tgt gcc ctg tgt aac	198
Phe Ala Lys Tyr Asn Arg Leu Gly Gln Leu Ser Cys Ala Leu Cys Asn	
45 50 55	
act ccg gtt aag agc gag ctc ctg tgg cag act cac gtc ctg gga aag	246
Thr Pro Val Lys Ser Glu Leu Leu Trp Gln Thr His Val Leu Gly Lys	
60 65 70	
cag cac cga gag aaa gtg gcc gag ctg aaa ggc gcg aag gaa gcc agc	294
Gln His Arg Glu Lys Val Ala Glu Leu Lys Gly Ala Lys Glu Ala Ser	
75 80 85	
cag ggt tcg tcc gcc agt tca gcg cct cag tcc gtc aak mnn aaa gcg	342
Gln Gly Ser Ser Ala Ser Ser Ala Pro Gln Ser Val Xaa Xaa Lys Ala	
90 95 100 105	
ccg gac gca gac gac caa gat gtc aag aga gcg aag gcc acc ttg gtg	390
Pro Asp Ala Asp Asp Gln Asp Val Lys Arg Ala Lys Ala Thr Leu Val	
110 115 120	
cct cag gta cag ccc tcc aca tct gcg tgg acc acc aac ttt gac aaa	438
Pro Gln Val Gln Pro Ser Thr Ser Ala Trp Thr Thr Asn Phe Asp Lys	
125 130 135	
ata gga aag gag ttc att aga gcg act ccc agt aag cct tca gga ctc	486
Ile Gly Lys Glu Phe Ile Arg Ala Thr Pro Ser Lys Pro Ser Gly Leu	

140 145 150 492
 agt tta
 Ser Leu
 155

<210> 1889
 <211> 418
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 135..416

<400> 1889
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 cctcatccct cccgtgggag cccccttgg acactctatg accctggacc ctcggggggac 120
 ctgaacttga tgcg atg gga ggc tgt gca ggc tcg cgg cgg cgc ttt tcg 170
 Met Gly Gly Cys Ala Gly Ser Arg Arg Arg Phe Ser
 1 5 10
 gat tcc gag ggg gag gag acc gtc ccg gag ccc cgg ctc cct ctg ttg 218
 Asp Ser Glu Gly Glu Glu Thr Val Pro Glu Pro Arg Leu Pro Leu Leu
 15 20 25
 gac cat cag ggc gcg cat tgg aag aac gcg gtg ggc ttc tgg ctg ctg 266
 Asp His Gln Gly Ala His Trp Lys Asn Ala Val Gly Phe Trp Leu Leu
 30 35 40
 ggc ctt tgc aac aac ttc tct tat gtg gtg atg ctg agt gcc gcc cac 314
 Gly Leu Cys Asn Asn Phe Ser Tyr Val Val Met Leu Ser Ala Ala His
 45 50 55 60
 gac atc ctt agc cac aag agg aca tcg gga aac cag agc cat gtg gac 362
 Asp Ile Leu Ser His Lys Arg Thr Ser Gly Asn Gln Ser His Val Asp
 65 70 75
 cca ggc cca acg ccg atc ccc cac aac agc tca tca cga ttt gac tgc 410
 Pro Gly Pro Thr Pro Ile Pro His Asn Ser Ser Ser Arg Phe Asp Cys
 80 85 90
 aac tct gt 418
 Asn Ser

<210> 1890
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 77..394

<400> 1890
 ctctgttttg gcttctgtct cacctagacc cgtccggctg cagactgtct ccgagacgct 60
 tcctgtccga atcagc atg att ctt cag agg ctc ttc agg ttc tcc tct gtc 112
 Met Ile Leu Gln Arg Leu Phe Arg Phe Ser Ser Val
 1 5 10

att cgg tca gcc gtc tca gtc cat ttg cgg agg aac att ggt gtt aca	160
Ile Arg Ser Ala Val Ser Val His Leu Arg Arg Asn Ile Gly Val Thr	
15 20 25	
gca gtg gca ttt aat aag gaa ctt gat cct ata cag aaa ctc ttt gtg	208
Ala Val Ala Phe Asn Lys Glu Leu Asp Pro Ile Gln Lys Leu Phe Val	
30 35 40	
gac aag att aga gaa tac aaa tct aag cga cag aca tct gga gga cct	256
Asp Lys Ile Arg Glu Tyr Lys Ser Lys Arg Gln Thr Ser Gly Gly Pro	
45 50 55 60	
gtt gat gct agt tca gag tat cag caa gag ctg gag agg gag ctt ttt	304
Val Asp Ala Ser Ser Glu Tyr Gln Gln Glu Leu Glu Arg Glu Leu Phe	
65 70 75	
aag ctc aag caa atg ttt ggt aat gca gac atg aat aca ttt ccc acc	352
Lys Leu Lys Gln Met Phe Gly Asn Ala Asp Met Asn Thr Phe Pro Thr	
80 85 90	
ttc aaa ttt gaa gat ccc aaa ttt gaa gtc atc gaa aaa ccc ca	396
Phe Lys Phe Glu Asp Pro Lys Phe Glu Val Ile Glu Lys Pro	
95 100 105	

<210> 1891
 <211> 313
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 107..313

<400> 1891	
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atgcactgaa gaggcagcga acctacyaac ctttggccga atcagc atg att ctt	115
Met Ile Leu	
1	
cag agg ctc ttc agg ttc tcc tct gtc att cgg tca gcc gtc tca gtc	163
Gln Arg Leu Phe Arg Phe Ser Ser Val Ile Arg Ser Ala Val Ser Val	
5 10 15	
cat ttg cgg agg aac att ggt gtt aca gca gtg gca ttt aat aag gaa	211
His Leu Arg Arg Asn Ile Gly Val Thr Ala Val Ala Phe Asn Lys Glu	
20 25 30 35	
ctt gat cct ata cag aaa ctc ttt gtg gac aag att aga gaa tac aaa	259
Leu Asp Pro Ile Gln Lys Leu Phe Val Asp Lys Ile Arg Glu Tyr Lys	
40 45 50	
tct aag cga cag aca tct gga gga cct gtt gat gct agt yca gag tat	307
Ser Lys Arg Gln Thr Ser Gly Gly Pro Val Asp Ala Ser Xaa Glu Tyr	
55 60 65	
cag caa	313
Gln Gln	

<210> 1892
 <211> 407
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 97..405

<400> 1892
 aggatcgggtg cgtggtgacg tttcgccggc gcgggcgcca tcccgggaagc gcgagcaagg 60
 ccgccagatg tgcaggcagc ggaggaggag aaagag atg gac ctc ccg gac tcg 114
 Met Asp Leu Pro Asp Ser
 1 5
 gcc tcg agg gtc ttc tgc ggc cgc atc ctg agc atg gtg aac aca gat 162
 Ala Ser Arg Val Phe Cys Gly Arg Ile Leu Ser Met Val Asn Thr Asp
 10 15 20
 gat gtc aac gcc atc atc ctg gcc cag aag aac atg ctg gac cgc ttt 210
 Asp Val Asn Ala Ile Ile Leu Ala Gln Lys Asn Met Leu Asp Arg Phe
 25 30 35
 gag aag acc aat gag atg ctg ctc aac ttc aac aac ctg tcc agt gcc 258
 Glu Lys Thr Asn Glu Met Leu Leu Asn Phe Asn Asn Leu Ser Ser Ala
 40 45 50
 cgc ctg cag cag atg agc gaa cgc ttc ctg cac cac acg agg acc cta 306
 Arg Leu Gln Gln Met Ser Glu Arg Phe Leu His His Thr Arg Thr Leu
 55 60 65 70
 gta gag atg aaa cgg gac ctg gac agc atc ttc cgc cgt atc agg acg 354
 Val Glu Met Lys Arg Asp Leu Asp Ser Ile Phe Arg Arg Ile Arg Thr
 75 80 85
 ctg aaa ggg aaa ctg gcc agg cag cac cca gag gcc ttc agc cat atc 402
 Leu Lys Gly Lys Leu Ala Arg Gln His Pro Glu Ala Phe Ser His Ile
 90 95 100
 cca ga 407
 Pro

<210> 1893
 <211> 229
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 74..229

<400> 1893
 attttggttcg cgcggaagcs cgcggtaggg tgggaaccca agcgggagag ccgcgggatt 60
 tgcggccgcc gcc atg ccg tcg tcc ccg ctg cgg gtg gcg gtg gtg tgc 109
 Met Pro Ser Ser Pro Leu Arg Val Ala Val Val Cys
 1 5 10
 tcg agc aac cag aac cgg agc atg gag gcg cac aac atc ctc agc aaa 157
 Ser Ser Asn Gln Asn Arg Ser Met Glu Ala His Asn Ile Leu Ser Lys
 15 20 25
 cgg gga ttc agc gtc cga tcc ttt gga aca ggg act cac gtg aag ctt 205
 Arg Gly Phe Ser Val Arg Ser Phe Gly Thr Gly Thr His Val Lys Leu
 30 35 40
 cca gga cca gct ccc gac aag ccc 229
 Pro Gly Pro Ala Pro Asp Lys Pro

45

50

<210> 1894
 <211> 478
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 90..476

<400> 1894
 accaacgacg gggacgctgg gaagccgact tccggcgccc tatttttctca cctggttccc 60
 gcggcgagcc agcggcagcg tcggcgggcg atg aga cag aag cac tac ctt gag 113
 Met Arg Gln Lys His Tyr Leu Glu
 1 5
 gct gca gcg cgg gga ctg cac gac agc tgc ccg ggc caa gcc cgc tac 161
 Ala Ala Ala Arg Gly Leu His Asp Ser Cys Pro Gly Gln Ala Arg Tyr
 10 15 20
 ctc ctc tgg gcc tac act tcg tcg cac gat gat aag agc act ttt gaa 209
 Leu Leu Trp Ala Tyr Thr Ser Ser His Asp Asp Lys Ser Thr Phe Glu
 25 30 35 40
 gaa acg tgt cca tac tgt ttc cag ctg ttg gtt ctg gat aac tct cga 257
 Glu Thr Cys Pro Tyr Cys Phe Gln Leu Leu Val Leu Asp Asn Ser Arg
 45 50 55
 gtg cgt ctc aaa ccc aaa gcc agg ttg aca ccc aaa ata cag aaa ctt 305
 Val Arg Leu Lys Pro Lys Ala Arg Leu Thr Pro Lys Ile Gln Lys Leu
 60 65 70
 ctt aat cga gaa gcg aga aac tat aca ctc agt ttt aaa gaa gca aaa 353
 Leu Asn Arg Glu Ala Arg Asn Tyr Thr Leu Ser Phe Lys Glu Ala Lys
 75 80 85
 atg gtg aaa aag ttc aaa gac tcc aaa agt gta ttg ttg atc act tgt 401
 Met Val Lys Lys Phe Lys Asp Ser Lys Ser Val Leu Leu Ile Thr Cys
 90 95 100
 aaa aca tgc aac aga aca gtg aaa cat cat ggt aaa agt aga agc ttt 449
 Lys Thr Cys Asn Arg Thr Val Lys His His Gly Lys Ser Arg Ser Phe
 105 110 115 120
 gtg tca aca ttg caa gag caa tcc tgc mm 478
 Val Ser Thr Leu Gln Glu Gln Ser Cys
 125

<210> 1895
 <211> 531
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 169..531

<400> 1895
 aaaactttca cttttctttt ctcggaagcc cggcccctta ctgcgtttgt caaagcacag 60

acttcctgtt ttgcctgcta gcatctccct gtaactctcc caatcttgag gagtgatccc 120
 tgtcccagcc cctggaaagg ggcaggaacg acaaactcaa agtccagg atg ttc acc 177

Met Phe Thr

1

atg aca aga gcc atg gaa gag gct ctt ttt cag cac ttc atg cac cag 225
 Met Thr Arg Ala Met Glu Glu Ala Leu Phe Gln His Phe Met His Gln

5

10

15

aag ctg ggg atc gcc tat gcc ata cac aag cca ttt ccc ttc ttt gaa 273
 Lys Leu Gly Ile Ala Tyr Ala Ile His Lys Pro Phe Pro Phe Phe Glu

ggc ctc cta gac aac tcc atc atc act aag aga atg tac atg gaa tct 321
 Gly Leu Leu Asp Asn Ser Ile Ile Thr Lys Arg Met Tyr Met Glu Ser

40

45

50

ctg gaa gcc tgt aga aat ttg atc cct gta tcc aga gtg gtg cac aac 369
 Leu Glu Ala Cys Arg Asn Leu Ile Pro Val Ser Arg Val Val His Asn

55

60

65

att ctc acc caa ctg gag agg act ttt aac ctg tct ctt ctg gtg aca 417
 Ile Leu Thr Gln Leu Glu Arg Thr Phe Asn Leu Ser Leu Leu Val Thr

70

75

80

ttg ttc agt caa att aac ctg cgt gaa tat ccc aat ctg gtg acg att 465
 Leu Phe Ser Gln Ile Asn Leu Arg Glu Tyr Pro Asn Leu Val Thr Ile

85

90

95

tac aga agc ttc aaa cgt gtt ggt gct tcc tat gaa cgg cag agc aga 513
 Tyr Arg Ser Phe Lys Arg Val Gly Ala Ser Tyr Glu Arg Gln Ser Arg

gac aca cca atc cta ctt 531
 Asp Thr Pro Ile Leu Leu

120

<210> 1896

<211> 305

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 32..304

<400> 1896

tcaaagcctc tgtcaccaca ccaaaataca a atg ggg atc tgt gac tca tca 52
 Met Gly Ile Cys Asp Ser Ser

1

5

gag tgt ggg ggt tgt gaa agg tgt gat gga tgt cag atg ttt cct atc 100
 Glu Cys Gly Gly Cys Glu Arg Cys Asp Gly Cys Gln Met Phe Pro Ile

10

15

20

aat gga tcc aga ttc aaa tgc aga aac tgt gat gac ttt gat ttt tgt 148
 Asn Gly Ser Arg Phe Lys Cys Arg Asn Cys Asp Asp Phe Asp Phe Cys

25

30

35

gaa acg tgt ttc aag acc aaa aaa cac aat acc agg cat aca ttt ggc 196
 Glu Thr Cys Phe Lys Thr Lys Lys His Asn Thr Arg His Thr Phe Gly

40

45

50

55

aga ata aat gaa cca ggc ttc agc aga aga aac act tcc tat aaa tct 244
 Arg Ile Asn Glu Pro Gly Phe Ser Arg Arg Asn Thr Ser Tyr Lys Ser

	60		65		70	
cgc cca aac agg	aaa gtc cag ttt	ttt tcc tgc agc	aaa cct gaa	aat	292	
Arg Pro Asn Arg	Lys Val Gln Phe	Phe Ser Cys Ser	Lys Pro Glu	Asn		
	75	80	85			
aca cta tcc tcc	a				305	
Thr Leu Ser Ser						
	90					

<210> 1897
 <211> 393
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 180..392

<400> 1897	
acctttcctc tttttccctg caggctagtg cctacttttt atcagtttgc acaatcgctt	60
agataaacac cgaggaggag attctcttta attatcaaag acacatcttt tcagggggcc	120
aacaaagcat ttatttcacc cgccaaacta aaggagagtt attccagttt aggaggaag	179
atg caa gcg gtt tgg gac ctt gaa caa ggc aaa tat ggt ttt gcg gtg	227
Met Gln Ala Val Trp Asp Leu Glu Gln Gly Lys Tyr Gly Phe Ala Val	
1 5 10 15	
cag agg ggc agg atg ccg ccg acc cag ccg acc cac ggg cag ttc gcg	275
Gln Arg Gly Arg Met Pro Pro Thr Gln Pro Thr His Gly Gln Phe Ala	
20 25 30	
ctg acc aac ggg gat ccc tca act gcc act cgt acc tgt ccg gat ata	323
Leu Thr Asn Gly Asp Pro Ser Thr Ala Thr Arg Thr Cys Pro Asp Ile	
35 40 45	
ttt ccc tgc tgt tgc gcg cgg asc cta tcc cac gtc gcg ctt cgg cag	371
Phe Pro Cys Cys Cys Ala Arg Xaa Leu Ser His Val Ala Leu Arg Gln	
50 55 60	
cca atg cat gca gcc caa caa c	393
Pro Met His Ala Ala Gln Gln	
65 70	

<210> 1898
 <211> 372
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 158..370

<400> 1898	
tttttcggtg gatctatcaa ttcacaattc gaatttggaa gaaagaagga aaacatgacg	60
tctccagcca aattcaaaaa ggataaggag atcatagcag agtacgatac tcagggtcaaa	120
gagtaaagaa gtcggccagc agctccaaga tgattttg atg aag gtc ctg aac gag	175
Met Lys Val Leu Asn Glu	
1 5	

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ctc tac tcg gtc atg aag aca tat cac atg tac aat gcc gac agc atc      223
Leu Tyr Ser Val Met Lys Thr Tyr His Met Tyr Asn Ala Asp Ser Ile
              10              15              20
agt gct cag agc aaa cta aag gag gcg gag aag cag gag gag aag caa      271
Ser Ala Gln Ser Lys Leu Lys Glu Ala Glu Lys Gln Glu Glu Lys Gln
              25              30              35
att ggt aaa tcg gta aag cag gag gac cgg cag acc cca cgc tcc cct      319
Ile Gly Lys Ser Val Lys Gln Glu Asp Arg Gln Thr Pro Arg Ser Pro
              40              45              50
gac tcc acg gcc aac gtt cgc att gag gag aaa cat gtc cgg agg agc      367
Asp Ser Thr Ala Asn Val Arg Ile Glu Glu Lys His Val Arg Arg Ser
55              60              65              70
tca gt
Ser

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<210> 1899
 <211> 374
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 12..374

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<400> 1899
cagcctttaa g atg gcg tct cct cag ggg ggc cag att gcg atc gcg atg      50
          Met Ala Ser Pro Gln Gly Gly Gln Ile Ala Ile Ala Met
              1              5              10
agg ctt cgg aac cag ctc cag tca gtg tac aag atg gac ccg cta cgg      98
Arg Leu Arg Asn Gln Leu Gln Ser Val Tyr Lys Met Asp Pro Leu Arg
              15              20              25
aac gag gag gag gtt cga gtg aag atc aaa gac ttg aat gaa cac att      146
Asn Glu Glu Glu Val Arg Val Lys Ile Lys Asp Leu Asn Glu His Ile
30              35              40              45
gtt tgc tgc cta tgc gcc ggc tac ttc gtg gat gcc acc acc atc aca      194
Val Cys Cys Leu Cys Ala Gly Tyr Phe Val Asp Ala Thr Thr Ile Thr
              50              55              60
gag tgt ctt cat act ttc tgc aag agt tgt att gtg aag tac ctc caa      242
Glu Cys Leu His Thr Phe Cys Lys Ser Cys Ile Val Lys Tyr Leu Gln
              65              70              75
act agc aag tac tgc ccc atg tgc aac att aag atc cac gag aca cag      290
Thr Ser Lys Tyr Cys Pro Met Cys Asn Ile Lys Ile His Glu Thr Gln
              80              85              90
cca ctg ctc aac ctc aaa ctg gac cgg gtc atg cag gac atc gtg tat      338
Pro Leu Leu Asn Leu Lys Leu Asp Arg Val Met Gln Asp Ile Val Tyr
              95              100              105
aag ctg gtg cct ggc ttg caa gac agt gaa gag aaa      374
Lys Leu Val Pro Gly Leu Gln Asp Ser Glu Glu Lys
110              115              120

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<210> 1900
 <211> 482
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 296..481

<400> 1900

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atcaaaagaa ctcttatata caggagccca ggcaccatac tgtcttttcg aggtaggagt      60
cgactcctgt gaggtatggt gctgggtgca gatgcagtgt ggctctggat agcaccttat      120
ggacagttgt gtccccaagg aaggatgaga atagctactg aagtcctaaa gagcaagcct      180
aactcaagcc attggcacac aggcattaga cagaaagctg gaagttgaaa tggtaggagtc      240
caacttgccct ggaccagctt aatggttctg ctctggttaa cgtttttatc catgg atg      298
                                   Met
                                   1
act tgc ttg ggg ttt tta atg acc aca aca agc aag cat gca gct tac      346
Thr Cys Leu Gly Phe Leu Met Thr Thr Thr Ser Lys His Ala Ala Tyr
                                   5                10                15

tgc ttg aaa ggg tct tgc ctc acc caa gct aga gtg cag tgg cct ttg      394
Cys Leu Lys Gly Ser Cys Leu Thr Gln Ala Arg Val Gln Trp Pro Leu
                                   20                25                30

aag ctt act aca gcc tca aac ttc tgg gct caa gtg atc ctc agc ctc      442
Lys Leu Thr Thr Ala Ser Asn Phe Trp Ala Gln Val Ile Leu Ser Leu
                                   35                40                45

cca gtg gtc ttt gta gac tgc ctg atg gag tct cat ggc a      482
Pro Val Val Phe Val Asp Cys Leu Met Glu Ser His Gly
50                                55                                60

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<210> 1901

<211> 589

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 424..588

<400> 1901

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atcaaaagaa ctcttatata caggagccca ggcaccatac tgtcttttcg aggtaggagt      60
cgactcctgt gaggtatggt gctgggtgca gatgcagtgt ggctctggat agcaccttat      120
ggacagttgt gtccccaagg aaggatgaga atagctactg aagtcctaaa gagcaagcct      180
aactcaagcc attggcacac aggcattaga cagaaagctg gaagttgaaa tggtaggagtc      240
caacttgccct ggaccagctt aatggttctg ctctggttaa cgtttttatc catggatgac      300
ttgcttgggt atggagagtc ggcttgacta cactgtgtgg agcaagtttt aaagaagcaa      360
aggactcaga attcatgatt gaagaaatgc aggcagacct gttatcctaa actagggttt      420
tta atg acc aca aca agc aag cat gca gct tac tgc ttg aaa ggg tct      468
Met Thr Thr Thr Ser Lys His Ala Ala Tyr Cys Leu Lys Gly Ser
1                5                10                15

tgc ctc amc caa gct aga gtg cag tgg cct ttg aag cwt act aca gcc      516
Cys Leu Xaa Gln Ala Arg Val Gln Trp Pro Leu Lys Xaa Thr Thr Ala
                                   20                25                30

tca aac ttc tgg gct caa gtg atc ctc agc ctc cca gtg gtc ttt gta      564
Ser Asn Phe Trp Ala Gln Val Ile Leu Ser Leu Pro Val Val Phe Val

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35 40 45 589
gac tgc ctg atg gag tmt cat ggc a
Asp Cys Leu Met Glu Xaa His Gly
50 55

<210> 1902
<211> 675
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 489..674

<400> 1902
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cgactcctgt gaggtatggg gctgggtgca gatgcagtgt ggctctggat agcaccttat 120
ggacagttgt gtccccaagg aaggatgaga atagctactg aagtaagttg aaaattccct 180
ctcaaaaagg tttaaagcca ttggatgtgc cacaatgatg acagtttatt tgctactcct 240
gagtgtctaga atgatgagga tcttaaccac cattatctta actgaggcac ccaaaatggg 300
gagttgggga acatagagag tacacctaag ttcacatgaa gttgtttcct cccaggtcct 360
akagagcaag cctaactcaa gccattggca cacaggcatt agacagaaag ctggaagttg 420
aaatggtgga gtccaacttg cctggaccag cttaatgggt ctgctcctgg taacgttttt 480
atccatgg atg act tgc ttg ggg ttt tta atg acc aca aca agc aag cat 530
Met Thr Cys Leu Gly Phe Leu Met Thr Thr Thr Ser Lys His
1 5 10
gca gct tac tgc ttg aaa ggg tct tgc ctc acc caa gct aga gtg cag 578
Ala Ala Tyr Cys Leu Lys Gly Ser Cys Leu Thr Gln Ala Arg Val Gln
15 20 25 30
tgg cct ttg aag ctt act aca gcc tca aac ttc tgg gct caa gtg atc 626
Trp Pro Leu Lys Leu Thr Thr Ala Ser Asn Phe Trp Ala Gln Val Ile
35 40 45
ctc agc ctc cca gtg gtc ttt gta gac tgc ctg atg gag tct cat ggc a 675
Leu Ser Leu Pro Val Val Phe Val Asp Cys Leu Met Glu Ser His Gly
50 55 60

<210> 1903
<211> 782
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 617..781

<400> 1903
atcaaaagaa ctcttatata caggagccca ggcaccatac tgtcttttcg aggtaggagt 60
cgactcctgt gaggtatggg gctgggtgca gatgcagtgt ggctctggat agcaccttat 120
ggacagttgt gtccccaagg aaggatgaga atagctactg aagtaagttg aaaattccct 180
ctcaaaaagg tttaaagcca ttggatgtgc cacaatgatg acagtttatt tgctactcct 240
gagtgtctaga atgatgagga tcttaaccac cattatctta actgaggcac ccaaaatggg 300
gagttgggga acatagagag tacacctaag ttcacatgaa gttgtttcct cccaggtcct 360

akagagcaag cctaactcaa gccattggca cacaggcatt agacagaaag ctggaagttg 420
 aaatggtgga gtccaacttg cctggaccag cttaatggtt ctgctcctgg taacgttttt 480
 atccatggat gacttgcttg ggtatggaga gtcggcttga ctacactgtg tggagcaagt 540
 tttaaagaag caaaggactc agaattcatg attgaagaaa tgcaggcaga cctgttatcc 600
 taaactaggg ttttta atg acc aca aca agc aag cat gca gct tac tgc ttg 652

Met Thr Thr Thr Ser Lys His Ala Ala Tyr Cys Leu
 1 5 10
 aaa ggg tct tgc ctc amc caa gct aga gtg cag tgg cct ttg aag cwt 700
 Lys Gly Ser Cys Leu Xaa Gln Ala Arg Val Gln Trp Pro Leu Lys Xaa
 15 20 25
 act aca gcc tca aac ttc tgg gct caa gtg atc ctc agc ctc cca gtg 748
 Thr Thr Ala Ser Asn Phe Trp Ala Gln Val Ile Leu Ser Leu Pro Val
 30 35 40
 gtc ttt gta gac tgc ctg atg gag tmt cat ggc a 782
 Val Phe Val Asp Cys Leu Met Glu Xaa His Gly
 45 50 55

<210> 1904
 <211> 821
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 656..820

<400> 1904
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 cgactcctgt gaggtatggt gctgggtgca gatgcagtgt ggctctggat agcaccttat 120
 ggacagttgt gtccccaagg aaggatgaga atagctactg aagtaagttg aaaattccct 180
 ctcaaaaagg tttaaagcca ttggatgtgc cacaatgatg acagtttatt tgctactctt 240
 gagtgctaga atgatgagga tcttaaccac cattatctta actgaggcac ccaaaatggt 300
 gagttgggga acatagagag tacacctaag ttcacatgaa gttgtttctt cccaggctct 360
 akagagcaag cctaactcaa gccattggca cacaggcatt agacagaaag ctggaagttg 420
 aaatggtgga gtccaacttg cctggaccag cttaatggtt ctgctcctgg taacgttttt 480
 atccatggat gacttgcttg ggtatggaga tgaagacagt tcctgtcata ccttttaaag 540
 gtatggagag tcggcttgac tacactgtgt ggagcaagtt ttaaagaagc aaaggactca 600
 gaattcatga ttgaagaaat gcaggcagac ctgttatcct aaactagggt tttta atg 658

Met
 1
 acc aca aca agc aag cat gca gct tac tgc ttg aaa ggg tct tgc ctc 706
 Thr Thr Thr Ser Lys His Ala Ala Tyr Cys Leu Lys Gly Ser Cys Leu
 5 10 15
 amc caa gct aga gtg cag tgg cct ttg aag cwt act aca gcc tca aac 754
 Xaa Gln Ala Arg Val Gln Trp Pro Leu Lys Xaa Thr Thr Ala Ser Asn
 20 25 30
 ttc tgg gct caa gtg atc ctc agc ctc cca gtg gtc ttt gta gac tgc 802
 Phe Trp Ala Gln Val Ile Leu Ser Leu Pro Val Val Phe Val Asp Cys
 35 40 45
 ctg atg gag tmt cat ggc a 821
 Leu Met Glu Xaa His Gly
 50 55

<210> 1905
 <211> 504
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 329..502

<400> 1905
 agtgaacccg gaagtgttc gcggcgagg cccgggcaac tcttttgaat ggaatcgggc 60
 tgattcatcg ccggtttgca gacwgagccg cgtcgggtgt gcgccgctgc tgctgttgcc 120
 tctgtcttcg cgtcaccaca gaggcaagac aagggtccat atcgcgccat ccggctcccg 180
 cccgtcttca ggagagaaaag aaaaaataaa atatacttgg ggaagttgta cctgccagaa 240
 ttagcaagag ctttctttaa gaagacattt gtcaaactca acaaattgaa ggtaaacacc 300
 ttaagagttg tagttactga ccagaaat atg gac aga ctt ctt aga ctt gga 352
 Met Asp Arg Leu Leu Arg Leu Gly
 1 5
 gga ggt atg cct gga ctg ggc cag ggg cca cct aca gat gct cct gca 400
 Gly Gly Met Pro Gly Leu Gly Gln Gly Pro Pro Thr Asp Ala Pro Ala
 10 15 20
 gtg gac aca gca gaa caa gtc tat atc tct tcc ctg gca ctg tta aaa 448
 Val Asp Thr Ala Glu Gln Val Tyr Ile Ser Ser Leu Ala Leu Leu Lys
 25 30 35 40
 atg tta aaa cat ggc cgt gct gga gtt cca atg gaa gtt atg ggt ttg 496
 Met Leu Lys His Gly Arg Ala Gly Val Pro Met Glu Val Met Gly Leu
 45 50 55
 atg ctt gg 504
 Met Leu

<210> 1906
 <211> 297
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 39..296

<400> 1906
 agtgcgacag acagcctcag agctggtggg gagacagc atg cca ctg gaa aaa ttc 56
 Met Pro Leu Glu Lys Phe
 1 5
 gta gac atg gaa ttc ctg gat caa atg ata cta agg ggg act tgc ctg 104
 Val Asp Met Glu Phe Leu Asp Gln Met Ile Leu Arg Gly Thr Cys Leu
 10 15 20
 gaa gca gac ttg tgt ccg cag tat aca aac tca ccc ttt aat gca cac 152
 Glu Ala Asp Leu Cys Pro Gln Tyr Thr Asn Ser Pro Phe Asn Ala His
 25 30 35
 act gac cag ata aca caa aca cat tta ccc cca cag cac cta gac tct 200
 Thr Asp Gln Ile Thr Gln Thr His Leu Pro Pro Gln His Leu Asp Ser
 40 45 50

tct	cac	agt	aca	cac	act	tgc	ctt	cca	gta	cac	aga	cat	atc	caa	agg	248
Ser	His	Ser	Thr	His	Thr	Cys	Leu	Pro	Val	His	Arg	His	Ile	Gln	Arg	
55					60					65				70		
cac	acc	gac	aag	cac	cac	agc	aaa	aag	atg	ttc	ccc	aga	aca	cat	gga	c
His	Thr	Asp	Lys	His	His	Ser	Lys	Lys	Met	Phe	Pro	Arg	Thr	His	Gly	297
				75					80					85		

<210> 1907
 <211> 444
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 52..444

<400> 1907																
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												Met	Glu			
												1				
aga	att	att	ctg	gat	aag	ttg	aat	tgg	gat	ctt	cac	aca	gcc	aca	cca	105
Arg	Ile	Ile	Leu	Asp	Lys	Leu	Asn	Trp	Asp	Leu	His	Thr	Ala	Thr	Pro	
	5						10				15					
ttg	gat	ttt	ctt	cat	att	ttc	cat	gcc	att	gca	gtg	tca	act	agg	cct	153
Leu	Asp	Phe	Leu	His	Ile	Phe	His	Ala	Ile	Ala	Val	Ser	Thr	Arg	Pro	
	20					25					30					
cag	tta	ctt	ttc	agt	ttg	ccc	aaa	ttg	agc	cca	tct	caa	cat	ttg	gca	201
Gln	Leu	Leu	Phe	Ser	Leu	Pro	Lys	Leu	Ser	Pro	Ser	Gln	His	Leu	Ala	
	35				40					45				50		
gtc	ctt	acc	aag	caa	cta	ctt	cac	tgt	atg	gcc	tgc	aac	caa	ctt	ctg	249
Val	Leu	Thr	Lys	Gln	Leu	Leu	His	Cys	Met	Ala	Cys	Asn	Gln	Leu	Leu	
				55					60					65		
caa	ttc	aga	gga	tcc	atg	ctt	gct	ctg	gcc	atg	gtt	agt	ctg	gaa	atg	297
Gln	Phe	Arg	Gly	Ser	Met	Leu	Ala	Leu	Ala	Met	Val	Ser	Leu	Glu	Met	
		70					75					80				
gag	aaa	ctc	att	cct	gat	tgg	ctt	tct	ctt	aca	att	gaa	ctg	ctt	cag	345
Glu	Lys	Leu	Ile	Pro	Asp	Trp	Leu	Ser	Leu	Thr	Ile	Glu	Leu	Leu	Gln	
		85				90					95					
aaa	gca	cag	atg	gat	agc	tcc	cag	ttg	atc	cat	tgt	cgg	gag	ctt	gtg	393
Lys	Ala	Gln	Met	Asp	Ser	Ser	Gln	Leu	Ile	His	Cys	Arg	Glu	Leu	Val	
	100					105					110					
gca	cat	cac	ctt	tct	act	ctg	cag	tct	tcc	ctg	cct	ctg	aat	tcc	gtt	441
Ala	His	His	Leu	Ser	Thr	Leu	Gln	Ser	Ser	Leu	Pro	Leu	Asn	Ser	Val	
					120					125				130		
tat																444
Tyr																

<210> 1908
 <211> 314
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 143..313

<400> 1908

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atgcttgggg aaggaacttc ctgtaagcaa ggcttgaggc ttgctctcgc cttcgtcagc      60
agccctcctc aatcttctcc aaactcccgt cccagggcca cacagattct cctcaagaga      120
sccctataan gacattggta aa atg tca ctg cct tca gga cac act acg ggt      172
                Met Ser Leu Pro Ser Gly His Thr Thr Gly
                1             5             10
cac act gat caa gtt gtt caa aga aga gca aga tgt tgg gat att tac      220
His Thr Asp Gln Val Val Gln Arg Arg Ala Arg Cys Trp Asp Ile Tyr
                15             20             25
caa agg aga ttt agc agt agg tct gaa cct gtc aat cct ggc atg cat      268
Gln Arg Arg Phe Ser Ser Arg Ser Glu Pro Val Asn Pro Gly Met His
                30             35             40
tct tca tcc cat cag cag caa aga tgg aga tgc agc aat gca wgg t      314
Ser Ser Ser His Gln Gln Gln Arg Trp Arg Cys Ser Asn Ala Xaa
                45             50             55

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<210> 1909
<211> 266
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 98..265

<400> 1909

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ggaaggggcg gggcgagat aggggtagcc tggaggcctg cagtcgcgc ggccgcgggg      60
agggacgaga gggcctgacg tacagattat aagcgcc atg gct atg gct agt gtt      115
                Met Ala Met Ala Ser Val
                1             5
aaa ttg ctt gcc ggt gtt tta aga aag cca gat gcc tgg att gga ctc      163
Lys Leu Leu Ala Gly Val Leu Arg Lys Pro Asp Ala Trp Ile Gly Leu
                10             15             20
tgg ggt gtt ctc cga ggg aca cct tca tca tac aaa ctc tgt act tcc      211
Trp Gly Val Leu Arg Gly Thr Pro Ser Ser Tyr Lys Leu Cys Thr Ser
                25             30             35
tgg aat cga tac ttg tat ttt tct agt acc aag tta cgt gca cca aat      259
Trp Asn Arg Tyr Leu Tyr Phe Ser Ser Thr Lys Leu Arg Ala Pro Asn
                40             45             50
tat aaa a      266
Tyr Lys
55

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<210> 1910
<211> 388
<212> DNA
<213> Homo sapiens

<220>

<221> CDS
<222> 154..387

<400> 1910
acaggaagtg aagagcttcc gccgggagac cgcggctgca ggaacggagg cggaaggggc 60
cctgcggcga cgacgtcgtc gacgggggtg gccgtgggag ctgagcacgg agaagactcc 120
ctctctcgga agccggatcc cgagccgggc agg atg gat cac cac cag ccg ggg 174
Met Asp His His Gln Pro Gly
1 5
act ggg cgc tac cag gtg ctt ctt aat gaa gag gat aac tca gaa tca 222
Thr Gly Arg Tyr Gln Val Leu Leu Asn Glu Glu Asp Asn Ser Glu Ser
10 15 20
tcg gct ata gag cag cca cct act tca aac cca gca ccr cng att gtg 270
Ser Ala Ile Glu Gln Pro Pro Thr Ser Asn Pro Ala Pro Xaa Ile Val
25 30 35
cag gct gcg tct tca gca cca gca ctt gaa act gac tct tcc cct cca 318
Gln Ala Ala Ser Ser Ala Pro Ala Leu Glu Thr Asp Ser Ser Pro Pro
40 45 50 55
cca tat agt agt att act gtg gaa gta cct aca act tca gat aca gaa 366
Pro Tyr Ser Ser Ile Thr Val Glu Val Pro Thr Thr Ser Asp Thr Glu
60 65 70
gtt tac ggt gag ttt tat ccc g 388
Val Tyr Gly Glu Phe Tyr Pro
75

<210> 1911
<211> 366
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 153..365

<400> 1911
aggagtagga ccttttagggg tgggagtggg gaaggagagg tttggggcta agtcttactg 60
aggtagcgct gccccagggtg catcctgagc tctacgtgga caagtcgcgg ggagataaac 120
tgaagatcaa catcgatgta ctttttccgc ac atg cct tgt gcc tat ctg agt 173
Met Pro Cys Ala Tyr Leu Ser
1 5
att gat gcc atg gat gtg gcc gga gaa cag cag ctg gat gtg gaa cac 221
Ile Asp Ala Met Asp Val Ala Gly Glu Gln Gln Leu Asp Val Glu His
10 15 20
aac ctg ttc aag caa cga cta gat aaa gat ggc atc ccc gtg agc tca 269
Asn Leu Phe Lys Gln Arg Leu Asp Lys Asp Gly Ile Pro Val Ser Ser
25 30 35
gag gct gag cgg cat gag ctt ggg aaa gtc gag gtg acg gtg ttt gac 317
Glu Ala Glu Arg His Glu Leu Gly Lys Val Glu Val Thr Val Phe Asp
40 45 50 55
cct gac tcc ctg gac cct gat cgc tgt gag agc tgc tat ggt gct gag g 366
Pro Asp Ser Leu Asp Pro Asp Arg Cys Glu Ser Cys Tyr Gly Ala Glu
60 65 70

<210> 1912
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 279..458

<400> 1912
 agctttctgt gcgcnngttc acactccggg tcagagttcc tggcccgggtg cacctgagag 60
 gtcgctctcc gactcccgcg ctggaccctc ttgcgccatt gaaccccctg atccgggggc 120
 ctcggacccc agggctcagg aggactgaac caagacttac ccgaagttgc cgcggggcct 180
 tccgatcccc taggccattg cccaagtctg gccaggctga tgggaccagc gaggagtctc 240
 tgcaccttga cattcagaaa ctgaaggaga agagggac atg ctg gac aag gag atc 296
 Met Leu Asp Lys Glu Ile
 1 5
 tcc cag ttc gta tct gaa ggc tac agt gtg gat gaa ctg gag gac cac 344
 Ser Gln Phe Val Ser Glu Gly Tyr Ser Val Asp Glu Leu Glu Asp His
 10 15 20
 att acc cag ctt cac gag tac aat gac atc aag gat gtg ggg cag atg 392
 Ile Thr Gln Leu His Glu Tyr Asn Asp Ile Lys Asp Val Gly Gln Met
 25 30 35
 ctg atg ggc aaa cta gct gtg atc cga ggt gtc acc acc aaa gag ttg 440
 Leu Met Gly Lys Leu Ala Val Ile Arg Gly Val Thr Thr Lys Glu Leu
 40 45 50
 tat cca gag ttt ggg ctg 458
 Tyr Pro Glu Phe Gly Leu
 55 60

<210> 1913
 <211> 432
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 73..432

<400> 1913
 cgcgctccta gtctccactg ctgccgccgt cgccgccacc cgagccggag cgggctgggc 60
 cgccaaggca ag atg gtg gac tac agc gtg tgg gac cac att gag gtg tct 111
 Met Val Asp Tyr Ser Val Trp Asp His Ile Glu Val Ser
 1 5 10
 gat gat gaa gac gag acg cac ccc aac atc gac acg gcc agt ctc ttc 159
 Asp Asp Glu Asp Glu Thr His Pro Asn Ile Asp Thr Ala Ser Leu Phe
 15 20 25
 cgc tgg cgg cat cag gcc cgg gtg gaa cgc atg gag cag ttc cag aag 207
 Arg Trp Arg His Gln Ala Arg Val Glu Arg Met Glu Gln Phe Gln Lys
 30 35 40 45
 gag aag gag gaa ctg gac agg ggc tgc cgc gag tgc aag cgc aag gtg 255

004220"666E7560

Glu	Lys	Glu	Glu	Leu	Asp	Arg	Gly	Cys	Arg	Glu	Cys	Lys	Arg	Lys	Val	
				50					55						60	
gcc	gag	tgc	cag	agg	aaa	ctg	aag	gag	ctg	gag	gtg	gcc	gag	ggc	ggc	303
Ala	Glu	Cys	Gln	Arg	Lys	Leu	Lys	Glu	Leu	Glu	Val	Ala	Glu	Gly	Gly	
			65					70					75			
aag	gca	gag	ctg	gag	cgc	ctg	cag	gnn	wag	gca	cag	cag	ctg	cgc	aag	351
Lys	Ala	Glu	Leu	Glu	Arg	Leu	Gln	Xaa	Xaa	Ala	Gln	Gln	Leu	Arg	Lys	
		80					85					90				
gag	gag	cgg	act	ggg	agc	aga	agn	rnk	gag	gag	atg	cgc	aag	aag	gag	399
Glu	Glu	Arg	Thr	Gly	Ser	Arg	Xaa	Xaa	Glu	Glu	Met	Arg	Lys	Lys	Glu	
	95					100					105					
aag	agc	atg	nnt	gga	acg	tgg	aca	cgc	tca	gca						432
Lys	Ser	Met	Xaa	Gly	Thr	Trp	Thr	Arg	Ser	Ala						
110						115				120						

<210> 1914
 <211> 333
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 73..333

<400>	1914																
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cgccaaggca	ag	atg	gtg	gac	tac	agc	gtg	tgg	gac	cac	att	gag	gtg	tct		111	
	Met	Val	Asp	Tyr	Ser	Val	Trp	Asp	His	Ile	Glu	Val	Ser				
	1					5						10					
gat	gat	gaa	gac	gag	acg	cac	ccc	aac	atc	gac	acg	gcc	agt	ctc	ttc	159	
Asp	Asp	Glu	Asp	Glu	Thr	His	Pro	Asn	Ile	Asp	Thr	Ala	Ser	Leu	Phe		
	15					20					25						
cgc	tgg	cgg	cat	cag	gcc	cgg	gtg	gaa	cgc	atg	gag	cag	ttc	cag	aag	207	
Arg	Trp	Arg	His	Gln	Ala	Arg	Val	Glu	Arg	Met	Glu	Gln	Phe	Gln	Lys		
	30				35				40				45				
gag	aag	gag	gaa	ctg	gac	agg	ggc	tgc	cgc	gag	tgc	aag	cgc	aag	gtg	255	
Glu	Lys	Glu	Glu	Leu	Asp	Arg	Gly	Cys	Arg	Glu	Cys	Lys	Arg	Lys	Val		
				50					55				60				
gcc	gag	tgc	cag	agg	aaa	ctg	aag	gag	ctg	gag	gtg	gcc	gag	ggc	ggc	303	
Ala	Glu	Cys	Gln	Arg	Lys	Leu	Lys	Glu	Leu	Glu	Val	Ala	Glu	Gly	Gly		
			65					70					75				
aag	gca	gcc	cct	ccc	agc	cta	ccc	ctc	ctg							333	
Lys	Ala	Ala	Pro	Pro	Ser	Leu	Pro	Leu	Leu								
	80						85										

<210> 1915
 <211> 440
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 92..439

004220-6667560

<400> 1915

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aagtttggtg gctgcggcag caggctagca aagtgcgcc gagggcctga gtgctccagt    60
agccaccgca tctggagaac cagcggttac c atg gag ggg atc agt ata tac    112
                               Met Glu Gly Ile Ser Ile Tyr
                               1           5
act tca gat aac tac acc gag gaa atg ggc tca ggg gac tat gac tcc    160
Thr Ser Asp Asn Tyr Thr Glu Glu Met Gly Ser Gly Asp Tyr Asp Ser
      10           15           20
atg aag gaa ccc tgt ttc cgt gaa gaa aat gct aat ttc aat aaa atc    208
Met Lys Glu Pro Cys Phe Arg Glu Glu Asn Ala Asn Phe Asn Lys Ile
      25           30           35
ttc ctg ccc acc atc tac tcc atc atc ttc tta act ggc att gtg ggc    256
Phe Leu Pro Thr Ile Tyr Ser Ile Ile Phe Leu Thr Gly Ile Val Gly
      40           45           50           55
aat gga ttg gtc atc ctg gtc atg ggt tac cag aag aaa ctg aga agc    304
Asn Gly Leu Val Ile Leu Val Met Gly Tyr Gln Lys Lys Leu Arg Ser
      60           65           70
atg acg gac aag tac agg ctg cac ctg tca gtg gcc gac ctc ctc ttt    352
Met Thr Asp Lys Tyr Arg Leu His Leu Ser Val Ala Asp Leu Leu Phe
      75           80           85
gtc atc acg ctt ccc ttc tgg gca gtt gat gcc gtg gca aac tgg tac    400
Val Ile Thr Leu Pro Phe Trp Ala Val Asp Ala Val Ala Asn Trp Tyr
      90           95           100
ttt ggg aac ttc cta tgc aag gca gtc cat gtc atc tac a    440
Phe Gly Asn Phe Leu Cys Lys Ala Val His Val Ile Tyr
      105           110           115

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<210> 1916

<211> 313

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 35..313

<400> 1916

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tcagtgahta gtgcagaggt gtcacctact tcca atg gag gga aag aga gga gag    55
                               Met Glu Gly Lys Arg Gly Glu
                               1           5
caa agg aaa cac atc cag aag tcg cca cga ggg ctg tgt gcc agc gct    103
Gln Arg Lys His Ile Gln Lys Ser Pro Arg Gly Leu Cys Ala Ser Ala
      10           15           20
cca ttt tca tgc tgt ttg gaa caa ggc gtg tca agg aag atg ttt cta    151
Pro Phe Ser Cys Cys Leu Glu Gln Gly Val Ser Arg Lys Met Phe Leu
      25           30           35
tcc aaa gtt ttc atg gag cct ctg ctt ccc ctg tac ctg tgt agc tcc    199
Ser Lys Val Phe Met Glu Pro Leu Leu Pro Leu Tyr Leu Cys Ser Ser
      40           45           50           55
ctg aaa ctg agg acc cac gtg tct gca aag acc tct gga gat cct aag    247
Leu Lys Leu Arg Thr His Val Ser Ala Lys Thr Ser Gly Asp Pro Lys

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004220-6667550

	60	65	70	
aga gag agg cac kag cag gta acc agt ggt ggc ctg gcc acg aaa gag				295
Arg Glu Arg His Xaa Gln Val Thr Ser Gly Gly Leu Ala Thr Lys Glu				
	75	80	85	
tat ttg aaa ttc aac agt				313
Tyr Leu Lys Phe Asn Ser				
	90			

<210> 1917
 <211> 217
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 <213> Homo sapiens

<220>
 <221> CDS
 <222> 37..216

<400> 1917	
gcagatgacg tgcggctcgt ggggcagctc ggcagc atg gcg tcc gtg rcg ctg	54
	Met Ala Ser Val Xaa Leu
	1 5
agc gag gcg gag aag gtg tac atc gtg cat ggc gtc cag gaa gac ctc	102
Ser Glu Ala Glu Lys Val Tyr Ile Val His Gly Val Gln Glu Asp Leu	
	10 15 20
cgt gtg gat ggc cgt ggc tgt gag gac tac cga tgt gtc gaa gtg gaa	150
Arg Val Asp Gly Arg Gly Cys Glu Asp Tyr Arg Cys Val Glu Val Glu	
	25 30 35
act gat gtg gtg tcc aac act agt ggg tcc gcc agg gtc aag ctg ggt	198
Thr Asp Val Val Ser Asn Thr Ser Gly Ser Ala Arg Val Lys Leu Gly	
	40 45 50
cac aca gac atc ttg gtg g	217
His Thr Asp Ile Leu Val	
	55 60

<210> 1918
 <211> 493
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 178..492

<400> 1918	
agagtttaca aaggtctagg atgacatctg gtgtattgac tgtggccagt cttaaagcta	60
gtttttgcta tgtggaacat gctgctctaa ttcagattta aagagtttct tcctgttaat	120
tcgaagctca ctgtgcctct tgtttccgag ggaagaagga ctgattaagt catctaa	177
atg gat gca ata ctg aat tac agg tca gaa gat act gaa gat tac tac	225
Met Asp Ala Ile Leu Asn Tyr Arg Ser Glu Asp Thr Glu Asp Tyr Tyr	
	1 5 10 15
aca tta ctg gga tgt gat gaa cta tct tcg gtt gaa caa atc ctg gca	273
Thr Leu Leu Gly Cys Asp Glu Leu Ser Ser Val Glu Gln Ile Leu Ala	

20	25	30	
gaa ttt aaa gtc aga gct ctg	gaa tgt cac cca gac aag cat cct gaa	321	
Glu Phe Lys Val Arg Ala Leu	Glu Cys His Pro Asp Lys His Pro Glu		
35	40	45	
aac ccc aaa gct gtg gag act	ttt cag aaa ctg cag aag gca aag gag	369	
Asn Pro Lys Ala Val Glu Thr	Phe Gln Lys Leu Gln Lys Ala Lys Glu		
50	55	60	
att ctg acc aat gaa gag agt	cga gcc cgc tat gac cac tgg cga agg	417	
Ile Leu Thr Asn Glu Glu Ser	Arg Ala Arg Tyr Asp His Trp Arg Arg		
65	70	75	80
agc cag atg tcg atg cca ttc	cag cag tgg gaa gct twg aat gac tca	465	
Ser Gln Met Ser Met Pro Phe	Gln Gln Trp Glu Ala Xaa Asn Asp Ser		
85	90	95	
gtg aag acg tca atg cac tgg	gtt gtc a	493	
Val Lys Thr Ser Met His Trp	Val Val		
100	105		

<210> 1919
 <211> 345
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 63..344

<400> 1919	
aaggcgtga gtgtgcgctt ttgagagtcg cggcgggaagg agcccggccg ccgcccgccg	60
gc atg agc tac gac cgc gcc atc acc gtc ttc tcg ccc gac ggc cac	107
Met Ser Tyr Asp Arg Ala Ile Thr Val Phe Ser Pro Asp Gly His	
1 5 10 15	
ctc ttc caa gtg gag tac gcg cag gag gcc gtc aag aag ggc tcg acc	155
Leu Phe Gln Val Glu Tyr Ala Gln Glu Ala Val Lys Lys Gly Ser Thr	
20 25 30	
gcg gtt ggt gtt cga gga aga gac att gtt gtt ctt ggt gtg gag aag	203
Ala Val Gly Val Arg Gly Arg Asp Ile Val Val Leu Gly Val Glu Lys	
35 40 45	
aag tca gtg gcc aaa ctg cag gat gaa aga aca gtg cgg aag atc tgt	251
Lys Ser Val Ala Lys Leu Gln Asp Glu Arg Thr Val Arg Lys Ile Cys	
50 55 60	
gct ttg gat gac aac gtc tgc atg gcc ttt gca ggc ctc acc gcc gat	299
Ala Leu Asp Asp Asn Val Cys Met Ala Phe Ala Gly Leu Thr Ala Asp	
65 70 75	
gca agg ata gtc atc aac agg gcc cgg gtg gag tgc cag agc cac c	345
Ala Arg Ile Val Ile Asn Arg Ala Arg Val Glu Cys Gln Ser His	
80 85 90	

<210> 1920
 <211> 471
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 156..470

<400> 1920

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aaggattcta gtccctccgg gctttccggt ctccaggccc ggctgacaga gttagccgag    60
gccgccatat tgaataagcg acccggcctc ctaggggggtc gtcgtgggtcc agacagttaa    120
gcagaacagc ctccgcgggt ccggggagaa gcaat atg tta agg ata cct gta    173
                               Met Leu Arg Ile Pro Val
                               1           5
aga aag gcc tta gta ggc ctt tct aag tct cct aaa gga tgt gtt cga    221
Arg Lys Ala Leu Val Gly Leu Ser Lys Ser Pro Lys Gly Cys Val Arg
          10           15           20
aca act gcc aca gca gca agc aac ttg att gaa gta ttt gtt gat ggt    269
Thr Thr Ala Thr Ala Ala Ser Asn Leu Ile Glu Val Phe Val Asp Gly
          25           30           35
cag tct gtc atg gtg gaa ccg gga acg acc gtc ctc caa gct tgt gag    317
Gln Ser Val Met Val Glu Pro Gly Thr Thr Val Leu Gln Ala Cys Glu
          40           45           50
aag gtt ggc atg cag atc cct cga ttc tgt tat cat gaa agg ttg tct    365
Lys Val Gly Met Gln Ile Pro Arg Phe Cys Tyr His Glu Arg Leu Ser
          55           60           65           70
gtt gct gga aac tgc agg atg tgc ctt gtt gaa att gag aaa gcc cct    413
Val Ala Gly Asn Cys Arg Met Cys Leu Val Glu Ile Glu Lys Ala Pro
          75           80           85
aag gtt gta gct gct tgt gcc atg cca gta atg aag ggt tgg aat atc    461
Lys Val Val Ala Ala Cys Ala Met Pro Val Met Lys Gly Trp Asn Ile
          90           95           100
cta aca aac t    471
Leu Thr Asn
          105

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<210> 1921
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 109..396

<400> 1921

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acctgncgca cttgacagcc cgctgaggac gcagcgtcas tgacctgggg agtcgcgatt    60
cgtgccggcc ggtcctgggt ctccggtccc gccgctcccc cagcagcc atg tcg ttc    117
                               Met Ser Phe
                               1
ttc ccg gag ctt tac ttt aac gtg gac aat ggc tac ttg gag gga ctg    165
Phe Pro Glu Leu Tyr Phe Asn Val Asp Asn Gly Tyr Leu Glu Gly Leu
          5           10           15
gtg cgc ggc ctg aag gcc ggg gtg ctc agc cag gcc gac tac ctc aac    213
Val Arg Gly Leu Lys Ala Gly Val Leu Ser Gln Ala Asp Tyr Leu Asn
          20           25           30           35
ctg gtg cag tgc gag acg cta gag gac ttg aaa ctg cat ctg cag agc    261

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Leu	Val	Gln	Cys	Glu	Thr	Leu	Glu	Asp	Leu	Lys	Leu	His	Leu	Gln	Ser	
				40					45					50		
act	gat	tat	ggt	aac	ttc	ctg	gcc	aac	gag	gca	tca	cct	ctg	acg	gtg	309
Thr	Asp	Tyr	Gly	Asn	Phe	Leu	Ala	Asn	Glu	Ala	Ser	Pro	Leu	Thr	Val	
			55					60					65			
tca	gtc	atc	gat	gac	cgg	ctc	aag	gag	aag	atg	gtg	gtg	gag	ttc	cgc	357
Ser	Val	Ile	Asp	Asp	Arg	Leu	Lys	Glu	Lys	Met	Val	Val	Glu	Phe	Arg	
		70					75					80				
cac	atg	agg	aac	cat	gcc	tat	gag	cca	ctc	gcc	agc	ttc	ct			398
His	Met	Arg	Asn	His	Ala	Tyr	Glu	Pro	Leu	Ala	Ser	Phe				
	85					90					95					

<210> 1922
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 119..361

<400> 1922																
agatatttaa	aggcgtcggc	gccacgcgca	watccctgct	cggcgctgcs	sgcccagttc											60
ctgttcccag	actgaggccc	agcccccttc	gcccgtttcc	atcacgagtg	ccgccagc											118
atg tct gac	aaa ctg ccc	tac aaa gtc	gcc gac atc	ggc ctg gct	gcc											166
Met Ser Asp	Lys Leu Pro	Tyr Lys Val	Ala Asp Ile	Gly Leu Ala	Ala											
1	5		10		15											
tgg gga cgc	aag gcc ctg	gac att gct	gag aac gag	atg ccg ggc	ctg											214
Trp Gly Arg	Lys Ala Leu	Asp Ile Ala	Glu Asn Glu	Met Pro Gly	Leu											
	20		25		30											
atg cgt atg	cgg gag cgg	tac tcg gcc	tcc aag cca	ctg aag ggc	gcc											262
Met Arg Met	Arg Glu Arg	Tyr Ser Ala	Ser Lys Pro	Leu Lys Gly	Ala											
	35		40		45											
cgc atc gct	ggc tgc ctg	cac atg acc	gtg gag acg	gcc gtm ctc	att											310
Arg Ile Ala	Gly Cys Leu	His Met Thr	Val Glu Thr	Ala Val Leu	Ile											
	50		55		60											
gag acc ctc	gtc acc ctg	ggt gct gag	gtg cag tgg	tcc agc tgc	aac											358
Glu Thr Leu	Val Thr Leu	Gly Ala Glu	Val Gln Trp	Ser Ser Cys	Asn											
	65		70		75											
atc tt																363
Ile																

<210> 1923
 <211> 390
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 80..388

<400> 1923

aagttgaccg ggggtgcggas tcctgggctg cagctcctgg agtttccgag gttcgtgcgc 60
gtctggtggc ggcggcgtg atg ttc tcg gca gga gcg gag agt ttg ctc cac 112
Met Phe Ser Ala Gly Ala Glu Ser Leu Leu His
1 5 10
cag gcc agg gag atc cag gac gng gag ctg aag aag ttc tgt tcc cgg 160
Gln Ala Arg Glu Ile Gln Asp Xaa Glu Leu Lys Lys Phe Cys Ser Arg
15 20 25
atc tgt aaa ctg ctg cag gcg gag gac ttg ggg ccg gac acc ctc gac 208
Ile Cys Lys Leu Leu Gln Ala Glu Asp Leu Gly Pro Asp Thr Leu Asp
30 35 40
tcc ctg cag agg ctc ttc ctc atc atc tca gcc acg aag tac agc cgg 256
Ser Leu Gln Arg Leu Phe Leu Ile Ile Ser Ala Thr Lys Tyr Ser Arg
45 50 55
agg tgr aag aag aca tgc gta gac ctg ctg cag gcc acc ctc ggc ctg 304
Arg Xaa Lys Lys Thr Cys Val Asp Leu Leu Gln Ala Thr Leu Gly Leu
60 65 70 75
cct gca tgc ccc gag cag ctc cag gtg ctt tgn gcg cca tcc tgc gag 352
Pro Ala Cys Pro Glu Gln Leu Gln Val Leu Xaa Ala Pro Ser Cys Glu
80 85 90
aga tgt ccc cct ctg aca gcn tca gcc ytg ggc ctg ag 390
Arg Cys Pro Pro Leu Thr Ala Ser Ala Leu Gly Leu
95 100

<210> 1924
<211> 548
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 312..548

<400> 1924
gttttagttt gtgcctcagc tgctggctac agcttcccgg gggagccggg taccacccgg 60
gcctggagac atgaggaggc agggatgtga ggggcggggg acaggacagc cggccttccg 120
ttaaatactc gctcctcgcg ctgcagcctc cctgcctatt gtcggggccg gagggagncc 180
gacgcagcat cagctcgtca acgggaagga agatgcctcc ctgcacgcc gccgcgcaca 240
gagcataaag aatctgcgct gaggaggcag gagaagaaag ccgaatctat ctaccgccgg 300
ggagccagaa g atg gag gaa gct gta ccg tgc caa cgc cac ctc ttc caa 350
Met Glu Glu Ala Val Pro Cys Gln Arg His Leu Phe Gln
1 5 10
gcc aag cgc ttt aac agg aga gcg tac tgc ggt cag tgc agc gag agg 398
Ala Lys Arg Phe Asn Arg Arg Ala Tyr Cys Gly Gln Cys Ser Glu Arg
15 20 25
ata tgg ggc ctc gcg agg caa ggc tac agg tgc atc aac tgc aaa ctg 446
Ile Trp Gly Leu Ala Arg Gln Gly Tyr Arg Cys Ile Asn Cys Lys Leu
30 35 40 45
ctg gtc cat aag cgc tgc cac ggc ctc gtc ccg ctg acc tgc agg aag 494
Leu Val His Lys Arg Cys His Gly Leu Val Pro Leu Thr Cys Arg Lys
50 55 60
cat atg gat tct gtc atk cct tcc caa gag cct cca gta gac gac aag 542
His Met Asp Ser Val Xaa Pro Ser Gln Glu Pro Pro Val Asp Asp Lys
65 70 75

aac gag
Asn Glu

548

<210> 1925
<211> 306
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 61..306

<400> 1925
gagacgtcgg ttgagcggcg gcgaacatgc gcttttgaca cattggaggc tttcttgatc 60
atg gat ggt gaa gat ata cca gat ttt tca agt tta aag gag gaa act 108
Met Asp Gly Glu Asp Ile Pro Asp Phe Ser Ser Leu Lys Glu Glu Thr
1 5 10 15
gct tat tgg aag gaa ctt tcc ttg aag tat aag caa agc ttc cag gaa 156
Ala Tyr Trp Lys Glu Leu Ser Leu Lys Tyr Lys Gln Ser Phe Gln Glu
20 25 30
gct cgg gat gag cta gtt gaa ttc cag gaa gga agc aga gaa tta gaa 204
Ala Arg Asp Glu Leu Val Glu Phe Gln Glu Gly Ser Arg Glu Leu Glu
35 40 45
gca gag ttg gag gca caa tta gta cag gct gaa caa aga aat aga gac 252
Ala Glu Leu Glu Ala Gln Leu Val Gln Ala Glu Gln Arg Asn Arg Asp
50 55 60
ttg cag gct gat aac caa aga ctg aaa tat gaa gtg gag gca tta aag 300
Leu Gln Ala Asp Asn Gln Arg Leu Lys Tyr Glu Val Glu Ala Leu Lys
65 70 75 80
gag agc 306
Glu Ser

<210> 1926
<211> 225
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 24..224

<400> 1926
gcttgtgaaa ctggaaggct gcc atg gct agc cma gcc gcc tcc tcg gtg cga 53
Met Ala Ser Xaa Ala Ala Ser Ser Val Arg
1 5 10
cca ccg agg ccc aag aaa gag ccg cag acg ctc gtc atc ccc aag aat 101
Pro Pro Arg Pro Lys Lys Glu Pro Gln Thr Leu Val Ile Pro Lys Asn
15 20 25
gcg gcg gag gag cag aag ctc aag ctg gag ccg ctc atg aag aac ccg 149
Ala Ala Glu Glu Gln Lys Leu Lys Leu Glu Arg Leu Met Lys Asn Pro
30 35 40
gtt caa gtg ctg ggg ccg gca gtg gag agt tcc acg tgt aca gac atc 197

Val Gln Val Leu Gly Pro Ala Val Glu Ser Ser Thr Cys Thr Asp Ile

45

50

55

tgc gcc gga gag amy atc agc gac agg a

225

Cys Ala Gly Glu Xaa Ile Ser Asp Arg

60

65

<210> 1927

<211> 436

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 188..436

<400> 1927

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ggatggatcg ctgagccgat agcgtccgct aggcgtgctg cctcgggtacc tggtactgct 120

gctacttcct cgtttgacac ctctctggaa tctctcttga tttttgagga aatacctagt 180

aacaaac atg act gag ttc tgg ctt ata tct gct cct ggg gag aaa acc 229

Met Thr Glu Phe Trp Leu Ile Ser Ala Pro Gly Glu Lys Thr

1

5

10

tgt cag caa aca tgg gag aaa ttg cat gcg gca act tca aag aac aat 277

Cys Gln Gln Thr Trp Glu Lys Leu His Ala Ala Thr Ser Lys Asn Asn

15

20

25

30

aat ctt gct gtc act tcc aag ttc aat att cct gac ttm aag gtt ggc 325

Asn Leu Ala Val Thr Ser Lys Phe Asn Ile Pro Asp Xaa Lys Val Gly

35

40

45

acg ttg gat gtc ttg gtt ggc ttg tca gat gaa ctg gct aaa ctg gat 373

Thr Leu Asp Val Leu Val Gly Leu Ser Asp Glu Leu Ala Lys Leu Asp

50

55

60

gca ttt gta gaa gga gtg gtt aag aaa gta gct caa tac atg gct gat 421

Ala Phe Val Glu Gly Val Val Lys Lys Val Ala Gln Tyr Met Ala Asp

65

70

75

gta ttg gaa gat agc 436

Val Leu Glu Asp Ser

80

<210> 1928

<211> 485

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 176..484

<400> 1928

aagctctttg cggtggcggtt ggtgctgttt gcggatgctg atgcagtttc tgcaggactg 60

taaactggat tccatgaacc tttgatattc ctggctgtgt atagtgcctg ttggtggact 120

gtactgatac tccaactrga gtgtgaaggg actggattcc tgcccctgak acaca atg 178

Met

caa gct gta gtg ccc ttg aac aag atg aca gcc atc tca cca gaa cct	1	226
Gln Ala Val Val Pro Leu Asn Lys Met Thr Ala Ile Ser Pro Glu Pro		
5 10 15		
caa act ctg gcc tcg act gaa caa aat gag gtc cca aga gtg gtt act		274
Gln Thr Leu Ala Ser Thr Glu Gln Asn Glu Val Pro Arg Val Val Thr		
20 25 30		
tct ggg gaa caa gaa gct att tta aga gga aat gct gct gat gca gag		322
Ser Gly Glu Gln Glu Ala Ile Leu Arg Gly Asn Ala Ala Asp Ala Glu		
35 40 45		
tct ttc aga cag agg ttt agg tgg ttt tgt tac tca gaa gta gct gga		370
Ser Phe Arg Gln Arg Phe Arg Trp Phe Cys Tyr Ser Glu Val Ala Gly		
50 55 60 65		
ccc agg aaa gct ctg agt caa ctc tgg gag ctc tgc aat cag tgg ctg		418
Pro Arg Lys Ala Leu Ser Gln Leu Trp Glu Leu Cys Asn Gln Trp Leu		
70 75 80		
aga cca gac att cac acg aaa gaa cag att tta gag ctt ctg gtg ttt		466
Arg Pro Asp Ile His Thr Lys Glu Gln Ile Leu Glu Leu Leu Val Phe		
85 90 95		
gag cag ttc ctg acc att t		485
Glu Gln Phe Leu Thr Ile		
100		

<210> 1929
 <211> 259
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 87..257

<400> 1929	
actaattaa tgccatctgg gtgggtctctc tgggtttttg agtccatcac ccagttcaga	60
tcgagtcaga ggccaaggrg gagaac atg atg atg gac ctt ttt gaa act ggc	113
Met Met Met Asp Leu Phe Glu Thr Gly	
1 5	
tcc tat ttc ttc tac ttg gat ggg gaa aat gtw act ctg cag cca tta	161
Ser Tyr Phe Phe Tyr Leu Asp Gly Glu Asn Val Thr Leu Gln Pro Leu	
10 15 20 25	
gaa gtg gca gaa ggc tct cct ttg tat cca ggg agt gat ggt acc ttg	209
Glu Val Ala Glu Gly Ser Pro Leu Tyr Pro Gly Ser Asp Gly Thr Leu	
30 35 40	
tcc ccc tgc cag gac caa atg ccc ccg gaa gcg ggg agc gac agc agy	257
Ser Pro Cys Gln Asp Gln Met Pro Pro Glu Ala Gly Ser Asp Ser Ser	
45 50 55	
gg	259

<210> 1930
 <211> 450
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 86..448

<400> 1930
 cagatggact cagttcccag tgaaaggaca gggatggcaa gatcttttag catttagggg 60
 atgcctttgt tagtaaccgt tcaca atg ggc agc tcc cgg ctg agg gtc ttt 112
 Met Gly Ser Ser Arg Leu Arg Val Phe
 1 5
 gac cct cat ttg gag agg aaa gat tcc gcc gcg gcg ctc tca gac cga 160
 Asp Pro His Leu Glu Arg Lys Asp Ser Ala Ala Ala Leu Ser Asp Arg
 10 15 20 25
 gag ctg ccc ttg cct acc ttc gat gtg cct tat ttc aaa tac atc gac 208
 Glu Leu Pro Leu Pro Thr Phe Asp Val Pro Tyr Phe Lys Tyr Ile Asp
 30 35 40
 gag gag gat gag gac gat gaa tgg agc agc cgc tcg cag tct tcc acc 256
 Glu Glu Asp Glu Asp Asp Glu Trp Ser Ser Arg Ser Gln Ser Ser Thr
 45 50 55
 gag gat gac tca gtg gac tct ctg ctc tct gac aga tat gtg gtg gtg 304
 Glu Asp Asp Ser Val Asp Ser Leu Leu Ser Asp Arg Tyr Val Val Val
 60 65 70
 tcc ggg acc ccg gag aag att ttg gag cac ctt ttg aat gac ttg cac 352
 Ser Gly Thr Pro Glu Lys Ile Leu Glu His Leu Leu Asn Asp Leu His
 75 80 85
 ctg gaa gaa gtc cag gac aar gaa aca gag acc ctc ctg gat gac ttc 400
 Leu Glu Glu Val Gln Asp Lys Glu Thr Glu Thr Leu Leu Asp Asp Phe
 90 95 100 105
 ctt ctc acg tac act gtc ttc atg aca act gat gac ttg tgc cag gct 448
 Leu Leu Thr Tyr Thr Val Phe Met Thr Thr Asp Asp Leu Cys Gln Ala
 110 115 120
 ct 450

<210> 1931
 <211> 391
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 159..389

<400> 1931
 gtagctccat aatcaagggc tgtccaaggg aaactgggtc ccttgaagaa tctacagatg 60
 agtctgagga agaagagagc gaagaggaac ccaagctgaa gtatgaaagg ctttccaatg 120
 gggtaactga aatacttcag aaggatgcak ctagctgc atg aca gtc cat gac aag 176
 Met Thr Val His Asp Lys
 1 5
 ttt ttg gca ttg ggc aca cat tat ggc aag gtt tat tta ctt gat gtc 224
 Phe Leu Ala Leu Gly Thr His Tyr Gly Lys Val Tyr Leu Leu Asp Val
 10 15 20
 cag ggg aac atc act cag aag ttt gat gta agt cct gtg aag ata aat 272
 Gln Gly Asn Ile Thr Gln Lys Phe Asp Val Ser Pro Val Lys Ile Asn

25	30	35	
cag att agc ttg gat gaa agt gga gag cac atg ggt gtg tgt tca gag			320
Gln Ile Ser Leu Asp Glu Ser Gly Glu His Met Gly Val Cys Ser Glu			
40	45	50	
gat ggc aag gtg cag gta ttt gga ctg tat tct gga gaa gaa ttt cac			368
Asp Gly Lys Val Gln Val Phe Gly Leu Tyr Ser Gly Glu Glu Phe His			
55	60	65	70
gag act ttt gac tgt ccc att aa			391
Glu Thr Phe Asp Cys Pro Ile			
75			

<210> 1932
 <211> 376
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 213..374

<400> 1932	
ctctwcccgct ctcattgactg tgtttactgg gctggatttt gggaaggggc cagattgcat	60
cagacagggc ctgatgggct ggagccagac tgtggtctga ggaggagaca cagccttata	120
agctgagggga gtggagaggc ccggggccag gaaagcagag acagacaaaag cgttaggaga	180
agaagagagg caggaagac aagccaggca cg atg gcc acc ttc cca cca gca	233
Met Ala Thr Phe Pro Pro Ala	
1 5	
acc agc gcc ccc cag cag ccc cca rgc ccg gag gac gag gac tcc agc	281
Thr Ser Ala Pro Gln Gln Pro Pro Xaa Pro Glu Asp Glu Asp Ser Ser	
10 15 20	
ctg gat gaa tct gac ctc tat agc ctg gcc cat tcc tac ctc ggt aag	329
Leu Asp Glu Ser Asp Leu Tyr Ser Leu Ala His Ser Tyr Leu Gly Lys	
25 30 35	
gcc cac tca gcc atc tcc acg gtc ctt cct cct ctc ccg aaa tca gg	376
Ala His Ser Ala Ile Ser Thr Val Leu Pro Pro Leu Pro Lys Ser	
40 45 50	

<210> 1933
 <211> 340
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 41..340

<400> 1933	
ggggtcttgg cgaacggtct tcggaagcgg cggcggcgcg atg acc acg cta cgg	55
Met Thr Thr Leu Arg	
1 5	
gcc ttt acc tgc gac gac ctg ttc cgc ttc aac aac att aac ttg gat	103
Ala Phe Thr Cys Asp Asp Leu Phe Arg Phe Asn Asn Ile Asn Leu Asp	

cca ctt aca gaa act tat ggg att cct ttc tac cta caa tac ctc gcc	10	15	20	151
Pro Leu Thr Glu Thr Tyr Gly Ile Pro Phe Tyr Leu Gln Tyr Leu Ala				
cac tgg cca gag tat ttc rtt gtt gca gag gca cct ggt gga gaa tta	25	30	35	199
His Trp Pro Glu Tyr Phe Xaa Val Ala Glu Ala Pro Gly Gly Glu Leu				
atg ggt tat att atg ggt aaa gca gaa ggc tca gta gct agg gaa gaa	40	45	50	247
Met Gly Tyr Ile Met Gly Lys Ala Glu Gly Ser Val Ala Arg Glu Glu				
tgg cac ggg cac gtc aca gct ctg tct gtt gcc cca gaa ttt cga cgc	55	60	65	295
Trp His Gly His Val Thr Ala Leu Ser Val Ala Pro Glu Phe Arg Arg				
ctt ggt ttg gct gct aaa ctt atg gag tta cta gag gag att cag	70	75	80	340
Leu Gly Leu Ala Ala Lys Leu Met Glu Leu Leu Glu Glu Ile Gln				
	90	95	100	
<210> 1934				
<211> 482				
<212> DNA				
<213> Homo sapiens				
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<221> CDS				
<222> 53..481				
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ccctgcctc ctctttccgt ctcaggtcgc cgctgcgaag ggagccgccg cc atg tct				58
			Met Ser	
			1	
gcg cat ctg caa tgg atg gtc gtg cgg aac tgc tcc agt ttc ctg atc				106
Ala His Leu Gln Trp Met Val Val Arg Asn Cys Ser Ser Phe Leu Ile				
	5	10	15	
aag agg aat aag cag acc tac agc act gag ccc aat aac ttg aag gcc				154
Lys Arg Asn Lys Gln Thr Tyr Ser Thr Glu Pro Asn Asn Leu Lys Ala				
	20	25	30	
cgc aat tcc ttc cgc tac aac gga ctg att cac cgc aag act gtg ggc				202
Arg Asn Ser Phe Arg Tyr Asn Gly Leu Ile His Arg Lys Thr Val Gly				
	35	40	45	50
gtg gag ccg gca gcc gac ggc aaa ggt gtc gtg gtc att aag cgg				250
Val Glu Pro Ala Ala Asp Gly Lys Gly Val Val Val Val Ile Lys Arg				
	55	60	65	
aga tcc ggc cag cgg aag cct gcc acc tcc tat gtg cgg acc acc atc				298
Arg Ser Gly Gln Arg Lys Pro Ala Thr Ser Tyr Val Arg Thr Thr Ile				
	70	75	80	
aac aag aat gct cgc gcc acg ctc agc agc atc aga cac atg atc cgc				346
Asn Lys Asn Ala Arg Ala Thr Leu Ser Ser Ile Arg His Met Ile Arg				
	85	90	95	
aag aac aag tac cgc ccc gac ctg cgc atg gac atg ctg gca tct act				394
Lys Asn Lys Tyr Arg Pro Asp Leu Arg Met Asp Met Leu Ala Ser Thr				
	100	105	110	
ggg tca ggg ctc tgc tgc tcg gtg gct gtg caa cct nng gca agt tcc				442
Gly Ser Gly Leu Cys Cys Ser Val Ala Val Gln Pro Xaa Ala Ser Ser				

115	120	125	130	482
tca act ctc tgt gtc	ttc gta ccc tca tct gta cat gcg t			
Ser Thr Leu Cys Val	Phe Val Pro Ser Ser Val His Ala			
	135	140		

<210> 1935
 <211> 324
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 54..323

<400> 1935		
ccctcgccctt cctctttccg tctcaggtcg ccgctgcgaa gggagccgcc gcc atg		56
	Met	
	1	
tct gcg cat ctg caa tgg atg gtc gtg cgg aac tgc tcc agt ttc ctg		104
Ser Ala His Leu Gln Trp Met Val Val Arg Asn Cys Ser Ser Phe Leu		
	5 10 15	
atc aag agg aat aag cag acc tac agc act gag ccc aac acc cta gta		152
Ile Lys Arg Asn Lys Gln Thr Tyr Ser Thr Glu Pro Asn Thr Leu Val		
	20 25 30	
gct ggg att aca ggt gcg tgc cac cac acc cag ctg att ttt ata ttt		200
Ala Gly Ile Thr Gly Ala Cys His His Thr Gln Leu Ile Phe Ile Phe		
	35 40 45	
tta gta aag acg ggg ttt cac cat gtt ggc cag gct agt cac gaa ctc		248
Leu Val Lys Thr Gly Phe His His Val Gly Gln Ala Ser His Glu Leu		
	50 55 60 65	
ctg acc tca ggt gat cca ccc gcc tca gcc tcc caa agt gct ggg att		296
Leu Thr Ser Gly Asp Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile		
	70 75 80	
aca ggc atg aac cac tgt gcc cag ggg c		324
Thr Gly Met Asn His Cys Ala Gln Gly		
	85 90	

<210> 1936
 <211> 393
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 54..392

<400> 1936		
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	Met	
	1	
tct gcg cat ctg caa tgg atg gtc gtg cgg aac tgc tcc agt ttc ctg		104
Ser Ala His Leu Gln Trp Met Val Val Arg Asn Cys Ser Ser Phe Leu		

	5		10		15	
atc aag agg aat aag cag acc tac agc act gag ccc aat aac ttg aag						152
Ile Lys Arg Asn Lys Gln Thr Tyr Ser Thr Glu Pro Asn Asn Leu Lys						
	20		25		30	
gcc cgc aat tcc ttc cgc tac aac gga ctg att cac cgc aag act gtg						200
Ala Arg Asn Ser Phe Arg Tyr Asn Gly Leu Ile His Arg Lys Thr Val						
	35		40		45	
ggc gtg gag ccg gca gcc gac ggc aaa ggt gtc gtg gtc att aag						248
Gly Val Glu Pro Ala Ala Asp Gly Lys Gly Val Val Val Ile Lys						
	50		55		60	65
cgg aga tcc ggc cag cgg aag cct gcc acc tcc tat gtg cgg acc acc						296
Arg Arg Ser Gly Gln Arg Lys Pro Ala Thr Ser Tyr Val Arg Thr Thr						
	70		75		80	
atc aac aag aat gct cgc gcc acg ctc agc agc atc aga cac atg atc						344
Ile Asn Lys Asn Ala Arg Ala Thr Leu Ser Ser Ile Arg His Met Ile						
	85		90		95	
cgc aag aac aag tac cag cga gtg ggg tta ttt tct tta atg tta gta a						393
Arg Lys Asn Lys Tyr Gln Arg Val Gly Leu Phe Ser Leu Met Leu Val						
	100		105		110	

<210> 1937
 <211> 310
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 91..309

<400> 1937
 aggcttaact accaccatct cctcgcgggc agtgggggca accgcgaaga cagaatttca 60
 caaactttca gctccagcag tttcaaggra atg tca aat gac aag atk gra gac 114
 Met Ser Asn Asp Lys Xaa Xaa Asp
 1 5
 cga gtg tca aga gct aag aca aca aaa agg ccc cca aaa ttt gtk ttc 162
 Arg Val Ser Arg Ala Lys Thr Thr Lys Arg Pro Pro Lys Phe Val Phe
 10 15 20
 aag aaa acc aat gaa aaa agc aag can tca gaa cgt gaa gtc cag gat 210
 Lys Lys Thr Asn Glu Lys Ser Lys Xaa Ser Glu Arg Glu Val Gln Asp
 25 30 35 40
 cat gga tgt gct tat ctt cac agt cac tgs tgg gtc ctg aag ttc tcc 258
 His Gly Cys Ala Tyr Leu His Ser His Xaa Trp Val Leu Lys Phe Ser
 45 50 55
 tct ggc sca gtg cca gct gcg aas cct ctg cca aag ggc cag akg agg 306
 Ser Gly Xaa Val Pro Ala Ala Xaa Pro Leu Pro Lys Gly Gln Xaa Arg
 60 65 70
 ccg g 310
 Pro

<210> 1938
 <211> 225
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 49..225

<400> 1938
 cagctactag aggacgcccg ttccaatggc aactctgccca aggcgcct atg aga gcc 57
 Met Arg Ala
 1
 tct tgg ctt tta cct ggt ctg cga gaa atc aaa ctt tgg gca caa gtc 105
 Ser Trp Leu Leu Pro Gly Leu Arg Glu Ile Lys Leu Trp Ala Gln Val
 5 10 15
 atg aag ccg aca agc ccg gga gac aca gtg tca gaa tta caa ggt ccc 153
 Met Lys Pro Thr Ser Pro Gly Asp Thr Val Ser Glu Leu Gln Gly Pro
 20 25 30 35
 gca tct ggg gct cga tct cgt gca gag gag cat ttc cga aga cac tgg 201
 Ala Ser Gly Ala Arg Ser Arg Ala Glu Glu His Phe Arg Arg His Trp
 40 45 50
 ccg ctc cca caa tgg ctc cga agc 225
 Pro Leu Pro Gln Trp Leu Arg Ser
 55

<210> 1939
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 134..358

<400> 1939
 aaaagttag cccmrcccc gettccccct cgctgtctcc ctgcgcctgt gccgcgcgcg 60
 acgcccgttg tgggccccgac tccgctctgt ctgcttcgcc accttctccc cgagcactgc 120
 ccggccggcc gcc atg gct aac atg gct gac acg aag ctg tac gac atc 169
 Met Ala Asn Met Ala Asp Thr Lys Leu Tyr Asp Ile
 1 5 10
 ctg ggc gtc ccg ccc ggc gcc agc gag aac gag ctg aag aag gca tac 217
 Leu Gly Val Pro Pro Gly Ala Ser Glu Asn Glu Leu Lys Lys Ala Tyr
 15 20 25
 aga aag tta gcc aag gaa tat cat cct gat aag aat cca aat gca gga 265
 Arg Lys Leu Ala Lys Glu Tyr His Pro Asp Lys Asn Pro Asn Ala Gly
 30 35 40
 gac aaa ttt aaa gaa ata agt ttt gca tat gaa gta cta tca aat cct 313
 Asp Lys Phe Lys Glu Ile Ser Phe Ala Tyr Glu Val Leu Ser Asn Pro
 45 50 55 60
 gag aag cgt gag tta tat gac aga tac gga gag caa ggt ctt cgg ga 360
 Glu Lys Arg Glu Leu Tyr Asp Arg Tyr Gly Glu Gln Gly Leu Arg
 65 70 75

<210> 1940
 <211> 690

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 310..690

<400> 1940

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gaggacctga acaagtccag aagggaagag atttgtccct ctatccaaca gagtaccacag      60
tgagcagcac agagggcaca gcaagggaca tcacccgggt ccccaaatgc tcagagccac      120
aagtgaagcc aaaagtgaag gacaagatgc agaaaaaccgc cacgggcctt tgaggaaggg      180
taaaggcgaa agcgaaaagca ggaagtacag acgtgaagcc tagcagagga ctttttagct      240
gctcactggc cccgcttgct tggccgactc atccgcccgc gacccctaata cccctctgcc      300
tgccccaag atg ctg aag cca gcc ctg gag ccc cga ggg ggc ttc tcc ttc      351
      Met Leu Lys Pro Ala Leu Glu Pro Arg Gly Gly Phe Ser Phe
            1             5             10
gag aac tgc caa aga aat gca tca ttg gaa cgc gtc ctc ccg ggg ctc      399
Glu Asn Cys Gln Arg Asn Ala Ser Leu Glu Arg Val Leu Pro Gly Leu
15             20             25             30
aag gtc cct cac gca cgc aag acc ggg acc acc atc gcg ggc ctg gtg      447
Lys Val Pro His Ala Arg Lys Thr Gly Thr Thr Ile Ala Gly Leu Val
            35             40             45
ttc caa gac ggg gtc att ctg ggc gcc gat acg cga gcc act aac gat      495
Phe Gln Asp Gly Val Ile Leu Gly Ala Asp Thr Arg Ala Thr Asn Asp
            50             55             60
tcg gtc gtg gcg nac aag agc tgc gag aag atc cac ttc atc gcc ccc      543
Ser Val Val Ala Xaa Lys Ser Cys Glu Lys Ile His Phe Ile Ala Pro
            65             70             75
aaa atc tac tgc tgt ggg gct gga gta gcc gcg gac gcc gag atg acc      591
Lys Ile Tyr Cys Cys Gly Ala Gly Val Ala Ala Asp Ala Glu Met Thr
            80             85             90
aca cgg atg gtg gcg tcc aag atg gcg cta cac gcg tta tct acg ggc      639
Thr Arg Met Val Ala Ser Lys Met Ala Leu His Ala Leu Ser Thr Gly
95             100             105             110
cgc gag ccc cgc gtg gcc acg gtc act cgc atc ctg cgc cag acg ctc      687
Arg Glu Pro Arg Val Ala Thr Val Thr Arg Ile Leu Arg Gln Thr Leu
            115             120             125

ttc      690
Phe

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<210> 1941

<211> 512

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 117..512

<400> 1941

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agtggccgac cacggatttg cattgccgag gacgggaccc cagggcagcg aasaga atg      119

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																Met	
																1	
gcc	aac	atg	cag	gga	ctg	gtg	gaa	aga	ctg	gaa	cga	gct	gtc	agc	cgc		167
Ala	Asn	Met	Gln	Gly	Leu	Val	Glu	Arg	Leu	Glu	Arg	Ala	Val	Ser	Arg		
			5					10					15				
ctg	gag	tcg	ctg	tct	gca	gag	tcc	cac	agg	ccc	cct	ggg	aac	tgc	ggg		215
Leu	Glu	Ser	Leu	Ser	Ala	Glu	Ser	His	Arg	Pro	Pro	Gly	Asn	Cys	Gly		
		20					25					30					
gaa	gtc	aat	ggg	gtc	att	gca	ggg	gtg	gca	ccc	tcc	gtg	gaa	gcc	ttt		263
Glu	Val	Asn	Gly	Val	Ile	Ala	Gly	Val	Ala	Pro	Ser	Val	Glu	Ala	Phe		
	35					40				45							
gac	aag	ctg	atg	gac	agt	atg	gtg	gcc	gag	ttt	tta	aag	aac	agt	agg		311
Asp	Lys	Leu	Met	Asp	Ser	Met	Val	Ala	Glu	Phe	Leu	Lys	Asn	Ser	Arg		
	50			55					60					65			
atc	ctt	gct	ggg	gac	gtg	gag	acc	cat	gca	gaa	atg	gtg	cac	agt	gct		359
Ile	Leu	Ala	Gly	Asp	Val	Glu	Thr	His	Ala	Glu	Met	Val	His	Ser	Ala		
			70					75					80				
ttc	cag	gcc	cag	cgg	gct	ttc	ctt	ctg	atg	gcc	tct	cag	tac	caa	caa		407
Phe	Gln	Ala	Gln	Arg	Ala	Phe	Leu	Leu	Met	Ala	Ser	Gln	Tyr	Gln	Gln		
		85					90					95					
ccc	cac	gag	aat	gac	gtg	gcc	gca	ctt	ctg	aaa	ccc	ata	tcg	gaa	aag		455
Pro	His	Glu	Asn	Asp	Val	Ala	Ala	Leu	Leu	Lys	Pro	Ile	Ser	Glu	Lys		
		100				105					110						
att	cag	gaa	atc	caa	act	ttc	aga	gag	aga	aac	cgg	ggg	agt	aac	atg		503
Ile	Gln	Glu	Ile	Gln	Thr	Phe	Arg	Glu	Arg	Asn	Arg	Gly	Ser	Asn	Met		
	115					120					125						
ttt	aat	cat															512
Phe	Asn	His															
																	130

<210> 1942
 <211> 366
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 54..365

<400> 1942																
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											Met					
											1					
tgt	gca	gtg	agc	tct	ata	gag	gag	caa	tgc	aga	gca	tca	gtt	tac	agg	104
Cys	Ala	Val	Ser	Ser	Ile	Glu	Glu	Gln	Cys	Arg	Ala	Ser	Val	Tyr	Arg	
		5					10					15				
tac	tat	gga	aag	aac	atc	tcc	tta	act	ctg	tat	gat	gaa	gca	aat	acc	152
Tyr	Tyr	Gly	Lys	Asn	Ile	Ser	Leu	Thr	Leu	Tyr	Asp	Glu	Ala	Asn	Thr	
		20				25					30					
aat	aca	atg	aag	gcc	acg	gaa	agg	tat	gat	ata	ttt	gat	cca	aga	cag	200
Asn	Thr	Met	Lys	Ala	Thr	Glu	Arg	Tyr	Asp	Ile	Phe	Asp	Pro	Arg	Gln	
	35				40				45							
tyc	att	cca	gtc	cgg	gaa	tct	aca	gtg	gtg	aca	agg	aca	tg	gac	tcc	248

Xaa	Ile	Pro	Val	Arg	Glu	Ser	Thr	Val	Val	Thr	Arg	Thr	Trp	Asp	Ser	
50					55				60					65		
tcc	tgc	cag	att	aca	gat	ggt	tca	cta	cag	ttg	aca	tcc	tgg	ctg	aca	296
Ser	Cys	Gln	Ile	Thr	Asp	Gly	Ser	Leu	Gln	Leu	Thr	Ser	Trp	Leu	Thr	
			70					75					80			
act	gtg	aaa	aag	aac	ctt	gga	tta	ttt	tat	ttt	att	ttt	gtg	gga	cac	344
Thr	Val	Lys	Lys	Asn	Leu	Gly	Leu	Phe	Tyr	Phe	Ile	Phe	Val	Gly	His	
			85				90					95				
cac	aat	ccc	aaa	tcc	aaa	gga	c									366
His	Asn	Pro	Lys	Ser	Lys	Gly										
			100													

<210> 1943
 <211> 433
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 170..433

<400> 1943																
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ccgccctagg	cgaagtaggg	ccgtcctgag	cgaaagaacc	gccccagca	ggagcaccac											120
cacggcttag	caaagaatcc	cagaccccgc	ccgggaaggc	agccgcacc	atg gag tct											178
					Met Glu Ser											
					1											
tcc agt tca tct aac tct tat ttc tcc gtt ggc cca acc agt ccc agc																226
Ser Ser Ser Ser Asn Ser Tyr Phe Ser Val Gly Pro Thr Ser Pro Ser																
5					10				15							
gct gtc gtg ctc ctc tac tcg aag gag ctc aaa aag tgg gat gag ttt																274
Ala Val Val Leu Leu Tyr Ser Lys Glu Leu Lys Lys Trp Asp Glu Phe																
20				25				30						35		
gaa gat att tta gaa gag agg agg cat gtc agt gac ttg aaa ttt gca																322
Glu Asp Ile Leu Glu Glu Arg Arg His Val Ser Asp Leu Lys Phe Ala																
			40			45							50			
atg aaa tgc tac aca cct ctt gtc tat aag gga att act cca tgt aaa																370
Met Lys Cys Tyr Thr Pro Leu Val Tyr Lys Gly Ile Thr Pro Cys Lys																
			55			60							65			
cca att gat att aaa tgt agt gtt ctc aat tct gag gag att cat tat																418
Pro Ile Asp Ile Lys Cys Ser Val Leu Asn Ser Glu Glu Ile His Tyr																
			70			75						80				
gtc att aaa cag ctt																433
Val Ile Lys Gln Leu																
			85													

<210> 1944
 <211> 430
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 95..430

<400> 1944

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gacttggcgg tgggrgcccgg agcctgcttg ttgcagctgt gggtaggac ggctctagct      60
aggtgagcgg ctcyrgcyag ttccctttta gact atg gcg aca tac ctg gag ttc      115
                               Met Ala Thr Tyr Leu Glu Phe
                               1           5
atc cag cag aat gaa gaa cgg gat ggt gtg cgt ttt agt tgg aac gtg      163
Ile Gln Gln Asn Glu Glu Arg Asp Gly Val Arg Phe Ser Trp Asn Val
      10           15           20
tgg cct tcc agc cgg ctg gag gct aca aga atg gtt gta ccc ctg gct      211
Trp Pro Ser Ser Arg Leu Glu Ala Thr Arg Met Val Val Pro Leu Ala
      25           30           35
tgt ctc ctt act cct ttg aaa gaa cgt cca gac cta cct cct gta caa      259
Cys Leu Leu Thr Pro Leu Lys Glu Arg Pro Asp Leu Pro Pro Val Gln
      40           45           50           55
tat gaa cct gtg ctt tgc agc agg cca act tgt aaa gct gtt ctc aac      307
Tyr Glu Pro Val Leu Cys Ser Arg Pro Thr Cys Lys Ala Val Leu Asn
      60           65           70
cca ctt tgt cag gtt gat tat cga gca aaa ctt tgg gcc tgt aat ttc      355
Pro Leu Cys Gln Val Asp Tyr Arg Ala Lys Leu Trp Ala Cys Asn Phe
      75           80           85
tgt ttt caa aga aat cag ttt cct cca gct tat gga ggc ata tct gag      403
Cys Phe Gln Arg Asn Gln Phe Pro Pro Ala Tyr Gly Gly Ile Ser Glu
      90           95           100
gtg aat caa cct gcc gaa ttg atg ccc      430
Val Asn Gln Pro Ala Glu Leu Met Pro
      105           110
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<210> 1945

<211> 379

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 116..379

<400> 1945

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aattttacgt ggtgctgcat ttccggtagc ggcggcggga aatcggtgt gggagagagg      60
ctaggcctct gaggaggcga atccggcggg tatcagagcc atcagaaccg ccacc atg      118
                               Met
                               1
acg gtg ggc aag agc agc aag atg ctg cag cat att gat tac agg atg      166
Thr Val Gly Lys Ser Ser Lys Met Leu Gln His Ile Asp Tyr Arg Met
      5           10           15
agg tgc atc ctg cag gac ggc cgg atc ttc att ggc acc ttc aag gct      214
Arg Cys Ile Leu Gln Asp Gly Arg Ile Phe Ile Gly Thr Phe Lys Ala
      20           25           30
ttt gac aag cac atg aat ttg atc ctc tgt gac tgt gat gag ttc aga      262
Phe Asp Lys His Met Asn Leu Ile Leu Cys Asp Cys Asp Glu Phe Arg
      35           40           45
```



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aag cct agt ccc ctg ctg gtc ggg cgg gaa ttt gtg aga cag tat tac      163
Lys Pro Ser Pro Leu Leu Val Gly Arg Glu Phe Val Arg Gln Tyr Tyr
5              10              15              20
aca ctg ctg aac cag gcc cca gac atg ctg cat aga ttt tat gga aag      211
Thr Leu Leu Asn Gln Ala Pro Asp Met Leu His Arg Phe Tyr Gly Lys
25              30              35
aac tct tct tat gtc cat ggg gga ttg gat tca aat gga aag cca gcw      259
Asn Ser Ser Tyr Val His Gly Gly Leu Asp Ser Asn Gly Lys Pro Ala
40              45              50
ga                                                                    261

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<210> 1948
 <211> 381
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 13..381

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<400> 1948
aaaggtacca at atg gcg gag gct tct ttt gga agt tcg agc cca gtt ggg      51
          Met Ala Glu Ala Ser Phe Gly Ser Ser Ser Pro Val Gly
          1              5              10
tct ttg tct tct gag gat cat gat ttt gac ccc act gct gag atg ttg      99
Ser Leu Ser Ser Glu Asp His Asp Phe Asp Pro Thr Ala Glu Met Leu
15              20              25
gtc cat gac tat gat gat gaa aga act ctt gaa gaa gag gaa atg atg      147
Val His Asp Tyr Asp Asp Glu Arg Thr Leu Glu Glu Glu Glu Met Met
30              35              40              45
gat gag ggt aaa aac ttc agt tca gaa att gaa gac tta gaa aag gaa      195
Asp Glu Gly Lys Asn Phe Ser Ser Glu Ile Glu Asp Leu Glu Lys Glu
50              55              60
gga acc atg cct cta gaa gat tta ctg gca ttc tat ggc tat gaa cct      243
Gly Thr Met Pro Leu Glu Asp Leu Leu Ala Phe Tyr Gly Tyr Glu Pro
65              70              75
aca att cca gca gtt gca aat tcc agt gca aat agt tcc cca agt gaa      291
Thr Ile Pro Ala Val Ala Asn Ser Ser Ala Asn Ser Ser Pro Ser Glu
80              85              90
ctg gca gat gaa cta cca gac atg aca cta gac aaa gag gaa ata gca      339
Leu Ala Asp Glu Leu Pro Asp Met Thr Leu Asp Lys Glu Glu Ile Ala
95              100              105
aaa gac ctg ttg tca ggt gat gac gag gaa act cag tct tct      381
Lys Asp Leu Leu Ser Gly Asp Asp Glu Glu Thr Gln Ser Ser
110              115              120

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<210> 1949
 <211> 467
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 94..465

<400> 1949

ttttttccgc gggccccgcc caggcggtctg cccgtgacct gcctgggcgc ggggaactga 60
aagccggaag gggcaagacg ggttcagttc gtc atg ggg ctg ttt gga aag acc 114
Met Gly Leu Phe Gly Lys Thr
1 5
cag gag aag ccg ccc aaa gaa ctg gtc aat gag tgg tca ttg aag ata 162
Gln Glu Lys Pro Pro Lys Glu Leu Val Asn Glu Trp Ser Leu Lys Ile
10 15 20
aga aag gaa atg aga gtt gtt gac agg caa ata agg gat atc caa aga 210
Arg Lys Glu Met Arg Val Val Asp Arg Gln Ile Arg Asp Ile Gln Arg
25 30 35
gaa gaa gaa aaa gtg aaa cra tct gtg aaa gat gct gcc aag aag ggc 258
Glu Glu Glu Lys Val Lys Xaa Ser Val Lys Asp Ala Ala Lys Lys Gly
40 45 50 55
cag aag gat gtc tgc ata gtt ctg gcc aag gag atg atc agg tca agg 306
Gln Lys Asp Val Cys Ile Val Leu Ala Lys Glu Met Ile Arg Ser Arg
60 65 70
aag gct gtg agc aag ctg tat gca tcc aaa gca cac atg aac tca gtg 354
Lys Ala Val Ser Lys Leu Tyr Ala Ser Lys Ala His Met Asn Ser Val
75 80 85
ctc atg ggg atg aag aac cag ctc gcg gtc ttg cga gtg gct ggt tcc 402
Leu Met Gly Met Lys Asn Gln Leu Ala Val Leu Arg Val Ala Gly Ser
90 95 100
ctg cag aag agc aca gaa gtg atg aag gcc atg caa agt ctt gtg aag 450
Leu Gln Lys Ser Thr Glu Val Met Lys Ala Met Gln Ser Leu Val Lys
105 110 115
att cca gag att cag gc 467
Ile Pro Glu Ile Gln
120

<210> 1950

<211> 331

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 54..329

<400> 1950

aatcggaagt ggctgcgtcg tcgacsntgg gctttcgggt cccgcgccca gag atg 56
Met
1
ggc tcc aag gca aag aag cgc gtg ctg ctg ccc acc cgc cca gcg ccc 104
Gly Ser Lys Ala Lys Lys Arg Val Leu Leu Pro Thr Arg Pro Ala Pro
5 10 15
ccc acg gtg gag cag atc ctg gag gat gtg cgg ggt gcg ccg gca gag 152
Pro Thr Val Glu Gln Ile Leu Glu Asp Val Arg Gly Ala Pro Ala Glu
20 25 30
gat cca gtg ttc acc atc ctg gcc ccg gaa gac ccc cca gtt ccc ttc 200

004220" 666E1560

Asp	Pro	Val	Phe	Thr	Ile	Leu	Ala	Pro	Glu	Asp	Pro	Pro	Val	Pro	Phe	
35						40				45						
agg	atg	atg	gag	gat	gcg	gag	gcc	ccg	gga	gag	cag	ctc	tac	cag	caa	248
Arg	Met	Met	Glu	Asp	Ala	Glu	Ala	Pro	Gly	Glu	Gln	Leu	Tyr	Gln	Gln	
50					55				60					65		
agc	cgg	gcc	tac	gtg	gct	gcc	aac	cag	cgg	ytg	cag	cag	gcg	ggc	aac	296
Ser	Arg	Ala	Tyr	Val	Ala	Ala	Asn	Gln	Arg	Leu	Gln	Gln	Ala	Gly	Asn	
			70					75					80			
gtg	ctg	agg	cag	akg	tgt	gag	ctc	ctg	cag	cgt	gc					331
Val	Leu	Arg	Gln	Xaa	Cys	Glu	Leu	Leu	Gln	Arg						
			85					90								

<210> 1951
 <211> 417
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 55..417

<400> 1951																	
gaatcggaag	tnnctg	cgctc	gtcgac	gctg	ggctttc	cggg	tcccgc	gccc	agag	atg							57
										Met							
										1							
ggc	tcc	aag	gca	aag	aag	cgc	gtg	ctg	ctg	ccc	acy	cgc	cca	kcg	ccc		105
Gly	Ser	Lys	Ala	Lys	Lys	Arg	Val	Leu	Leu	Pro	Thr	Arg	Pro	Xaa	Pro		
			5				10						15				
ccc	acg	gtg	gag	cag	atc	ctg	gag	gat	gtg	cgg	ggt	gcg	ccg	gca	gak		153
Pro	Thr	Val	Glu	Gln	Ile	Leu	Glu	Asp	Val	Arg	Gly	Ala	Pro	Ala	Xaa		
			20			25						30					
kat	cca	gtg	ttc	acc	atc	ctg	gcc	ccg	gaa	ggt	agg	ggg	agc	ccg	gtc		201
Xaa	Pro	Val	Phe	Thr	Ile	Leu	Ala	Pro	Glu	Gly	Arg	Gly	Ser	Pro	Val		
			35			40					45						
ccg	ggg	aaa	agc	gga	cct	gka	acc	ccg	gca	gca	agg	gga	cgg	gag	aga		249
Pro	Gly	Lys	Ser	Gly	Pro	Xaa	Thr	Pro	Ala	Ala	Arg	Gly	Arg	Glu	Arg		
			50			55				60				65			
agc	aca	ccc	cta	act	cct	gac	ccc	acg	ccc	tgg	gaa	ccc	ccg	caa	cat		297
Ser	Thr	Pro	Leu	Thr	Pro	Asp	Pro	Thr	Pro	Trp	Glu	Pro	Pro	Gln	His		
			70					75						80			
ggg	cac	ggt	ccg	tat	cct	ctc	cga	gtc	tcc	ctc	tac	tcc	tcc	gta	gag		345
Gly	His	Gly	Pro	Tyr	Pro	Leu	Arg	Val	Ser	Leu	Tyr	Ser	Ser	Val	Glu		
			85					90					95				
tgg	gac	cga	ttt	tca	gag	ggt	tct	tct	gac	agg	ggt	nga	ggc	cgg	gcg		393
Trp	Asp	Arg	Phe	Ser	Glu	Gly	Ser	Ser	Asp	Arg	Gly	Xaa	Gly	Arg	Ala		
			100				105					110					
ctg	tgg	ttc	agg	cct	gta	agc	cca										417
Leu	Trp	Phe	Arg	Pro	Val	Ser	Pro										
			115				120										

<210> 1952
 <211> 295
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 54..293

<400> 1952

aatcggaggt ggctgcgtcg tcgacgctgg gctttcgggt cccgcgccca gag atg 56
Met
1
ggc tcc aag gca aag aag cgc gtg ctg ctg ccc acc cgc cca gcg ccc 104
Gly Ser Lys Ala Lys Lys Arg Val Leu Leu Pro Thr Arg Pro Ala Pro
5 10 15
ccc acg gtg gag cag rat cct gga gga tgt gcg ggg tgc gcc ggc aga 152
Pro Thr Val Glu Gln Xaa Pro Gly Gly Cys Ala Gly Cys Ala Gly Arg
20 25 30
gga tcc agt gtt cac cat cct ggc ccc gga agg ctg gag tgc agt ggc 200
Gly Ser Ser Val His His Pro Gly Pro Gly Arg Leu Glu Cys Ser Gly
35 40 45
gag atc tcg act cac tgc agg ctc cga ctc ccc agt tca agc gat tct 248
Glu Ile Ser Thr His Cys Arg Leu Arg Leu Pro Ser Ser Ser Asp Ser
50 55 60 65
cct gcc tca gcc tcc gga gta gct ggg act aca gac acc cgc cac ca 295
Pro Ala Ser Ala Ser Gly Val Ala Gly Thr Thr Asp Thr Arg His
70 75 80

<210> 1953

<211> 383

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 126..383

<400> 1953

aagtctgagc ctccggcacc ggccgcgcas tggaggcggc ggacggaagc cttgacttca 60
tctcagctcc agagcccgcg ctctcttcct gcagcctggg aacttcagcc ggctggagcc 120
ccacc atg gct gca atc cga aag aag ctg gtg atc gtt ggg gat ggt gcc 170
Met Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly Ala
1 5 10 15
tgt ggg aag acc tgc ctc ctc atc gtc ttc agc aag gat cag ttt ccg 218
Cys Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Lys Asp Gln Phe Pro
20 25 30
gag tct acg tcc cta ctg tct ttg aga act atw ttg cgg aca ttg agg 266
Glu Ser Thr Ser Leu Leu Ser Leu Arg Thr Ile Leu Arg Thr Leu Arg
35 40 45
tgg acg gca agc agg tgg agc tgg ctc tgt ggg aca cag cag ggc agg 314
Trp Thr Ala Ser Arg Trp Ser Trp Leu Cys Gly Thr Gln Gln Gly Arg
50 55 60
aag act atg atc gac tgc ggc ctc tct cct acc cgg aca ctg atg tca 362
Lys Thr Met Ile Asp Cys Gly Leu Ser Pro Thr Arg Thr Leu Met Ser

65 70 75 383
 tcc tca tgt gct tct cca tcg
 Ser Ser Cys Ala Ser Pro Ser
 80 85

<210> 1954
 <211> 430
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 172..429

<400> 1954
 aagtctgagc ctccggcacc ggccgcgcas tggaggcggc ggacggaagc cttgacttca 60
 tctcagctcc agagcccgcc ctctcttcct gcagcctggg aacttcagcc ggctggaggt 120
 cagttcccct ccccgaggaa ggaggaagtg agggaagctg cgaascccac c atg gct 177
 Met Ala
 1
 gca atc cga aag aag ctg gtg atc gtt ggg gat ggt rcc tgt ggg aag 225
 Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly Xaa Cys Gly Lys
 5 10 15
 acc tgc ctc ctc atc gtc ttc agc awg gat cag ttt ccg gag gtc tac 273
 Thr Cys Leu Leu Ile Val Phe Ser Xaa Asp Gln Phe Pro Glu Val Tyr
 20 25 30
 gtc cct act gtc ttt gag aac tat wtt gcg gac att gag gtg gac ggc 321
 Val Pro Thr Val Phe Glu Asn Tyr Xaa Ala Asp Ile Glu Val Asp Gly
 35 40 45 50
 aag cag gtg gag ctg gct ctg tgg gac aca gca ggg cag gaa gac tat 369
 Lys Gln Val Glu Leu Ala Leu Trp Asp Thr Ala Gly Gln Glu Asp Tyr
 55 60 65
 gat cga ctg cgg cct ctc tcc tac ccg gac act gat gtc atc ctc atg 417
 Asp Arg Leu Arg Pro Leu Ser Tyr Pro Asp Thr Asp Val Ile Leu Met
 70 75 80
 tgc ttc tcc atc g 430
 Cys Phe Ser Ile
 85

<210> 1955
 <211> 264
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 56..262

<400> 1955
 agtctgagcc tccggcaccg gccgcgcact ggaggcggcg gasggaagcc ccacc atg 58
 Met
 1

gct gca atc cga aag aag ctg gtg atc gtt ggg gat ggt gcc tgt ggg	106
Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly Ala Cys Gly	
5 10 15	
aag acc tgc ctc ctc atc gtc ttc agc aag gat cag ttt ccg gag gtc	154
Lys Thr Cys Leu Leu Ile Val Phe Ser Lys Asp Gln Phe Pro Glu Val	
20 25 30	
tac gtc cct act gtc ttt gag aac tat att gcg gac att gag gtg gac	202
Tyr Val Pro Thr Val Phe Glu Asn Tyr Ile Ala Asp Ile Glu Val Asp	
35 40 45	
ggc aag cag gtg gag ctg gct ctg tgg gac aca gca ggg cag gaa gac	250
Gly Lys Gln Val Glu Leu Ala Leu Trp Asp Thr Ala Gly Gln Glu Asp	
50 55 60 65	
tat gat cga ccg cg	264
Tyr Asp Arg Pro	

<210> 1956
 <211> 292
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 35..292

<400> 1956	
gggagttgta gtacgaatcc gtcaggccgg aacc atg gca gtg acc aag gag ctc	55
Met Ala Val Thr Lys Glu Leu	
1 5	
tta cag atg gac ctg tac gcg ctg cta ggc att gag gag aag gca gcg	103
Leu Gln Met Asp Leu Tyr Ala Leu Leu Gly Ile Glu Glu Lys Ala Ala	
10 15 20	
gac aaa gag gta aag aag gcg tat agg cag aag gcc ctc tcc tgc cac	151
Asp Lys Glu Val Lys Lys Ala Tyr Arg Gln Lys Ala Leu Ser Cys His	
25 30 35	
cca gac aaa aat cca gat aat ccc aga gca gct gaa ctc ttc cac cag	199
Pro Asp Lys Asn Pro Asp Asn Pro Arg Ala Ala Glu Leu Phe His Gln	
40 45 50 55	
ctt tct cag gcc ttg gag gtg ctg acc gat gct gca gcc agg gct gca	247
Leu Ser Gln Ala Leu Glu Val Leu Thr Asp Ala Ala Ala Arg Ala Ala	
60 65 70	
tat gac aag gtc agg ana gcc aag aag caa gca gca gag agg acc	292
Tyr Asp Lys Val Arg Xaa Ala Lys Lys Gln Ala Ala Glu Arg Thr	
75 80 85	

<210> 1957
 <211> 305
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 115..303

<400> 1957
 gttcccgga gttttgctgc tagtcgcgga cgcaatggct tcaagggttac ttcgcggast 60
 ggaacgctgg ccgcgcaggc cctgagggct cgcggcccca gtggcgcggc cgcg atg 117
 Met
 1
 cgc tcc atg gca tct gga ggt ggt gtt ccc act gat gaa gag cag gcg 165
 Arg Ser Met Ala Ser Gly Gly Gly Val Pro Thr Asp Glu Glu Gln Ala
 5 10 15
 act ggg ttg gag agg gag atc atg ctg gct gca aag aag gga ctg gac 213
 Thr Gly Leu Glu Arg Glu Ile Met Leu Ala Ala Lys Lys Gly Leu Asp
 20 25 30
 cca tac aat gta ctg gcc cca aag gga gct tca ggc acc agg gaa gac 261
 Pro Tyr Asn Val Leu Ala Pro Lys Gly Ala Ser Gly Thr Arg Glu Asp
 35 40 45
 cct aat tta gtc ccc tcc atc tcc aac aag aga ata gta ggc tg 305
 Pro Asn Leu Val Pro Ser Ile Ser Asn Lys Arg Ile Val Gly
 50 55 60

<210> 1958
 <211> 361
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 185..361

<400> 1958
 agaggastcc cagcggctgg agcasaagtg ttagcggcca gagctcccag acccctaccc 60
 acagccaggc gggacgcgca cagtcctctc acgcggaaag aagtaccttc gccggtcacc 120
 ggctcctgca ggggtgcaaat atatacagag cttcataatc agcccaagac cacatagagc 180
 aaac atg aat gat att tcc caa aag gct gag att aaa gaa atg ctt gct 229
 Met Asn Asp Ile Ser Gln Lys Ala Glu Ile Lys Glu Met Leu Ala
 1 5 10 15
 tct gat gat gag gaa gat gta tct tct aaa gta gaa aag gct tat gtt 277
 Ser Asp Asp Glu Glu Asp Val Ser Ser Lys Val Glu Lys Ala Tyr Val
 20 25 30
 cca aaa tta aca gga act gtg aag ggt aga ttt gct gaa atg gag aaa 325
 Pro Lys Leu Thr Gly Thr Val Lys Gly Arg Phe Ala Glu Met Glu Lys
 35 40 45
 caa aga caa gag gaa caa agg aag aga acg gag gag 361
 Gln Arg Gln Glu Glu Gln Arg Lys Arg Thr Glu Glu
 50 55

<210> 1959
 <211> 480
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 17..478

<400> 1959

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acacacgcct gcaggt atg gcg ttc tgg tgt cag cgt gac agt tat gcc cga      52
      Met Ala Phe Trp Cys Gln Arg Asp Ser Tyr Ala Arg
              1              5              10
gag ttc acc acc acc gtg gtc tct tgc tgt ccc gcg gag ctg cag act      100
Glu Phe Thr Thr Thr Val Val Ser Cys Cys Pro Ala Glu Leu Gln Thr
              15              20              25
gaa ggg agc aac ggc aag aaa gaa gtg ctg agc ggt ttc caa gtg gtg      148
Glu Gly Ser Asn Gly Lys Lys Glu Val Leu Ser Gly Phe Gln Val Val
              30              35              40
ctg gaa gac aca gtg ctt ttc cct gag ggc ggg gga cag cct gat gac      196
Leu Glu Asp Thr Val Leu Phe Pro Glu Gly Gly Gly Gln Pro Asp Asp
              45              50              55              60
cgt ggt aca atc aat gac atc tct gtg ctg aga gtg act cgc cgt ggg      244
Arg Gly Thr Ile Asn Asp Ile Ser Val Leu Arg Val Thr Arg Arg Gly
              65              70              75
gaa cag gct gat cat ttc acc cag aca ccc ctg gat cca gga agc cag      292
Glu Gln Ala Asp His Phe Thr Gln Thr Pro Leu Asp Pro Gly Ser Gln
              80              85              90
gtt ctg gtc cgg gta gat tgg gag cgg agg ttt gac cac atg cag cag      340
Val Leu Val Arg Val Asp Trp Glu Arg Arg Phe Asp His Met Gln Gln
              95              100              105
cat tca ggg cag cat ctc atc acg gca gtt gct gac cat cta ttt aag      388
His Ser Gly Gln His Leu Ile Thr Ala Val Ala Asp His Leu Phe Lys
              110              115              120
ctg aag aca aca tca tgg gag gta ggg aga ttt cgg agt gcg att gag      436
Leu Lys Thr Thr Ser Trp Glu Leu Gly Arg Phe Arg Ser Ala Ile Glu
              125              130              135              140
ctg gac anc ccc tct atg act gca gag caa gta gct gcc att ga      480
Leu Asp Xaa Pro Ser Met Thr Ala Glu Gln Val Ala Ala Ile
              145              150

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<210> 1960

<211> 706

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 31..705

<400> 1960

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ctctcattcc ctcgcgtct ctcgggcaac atg gcg ggt gtg gag gag gta gcg      54
      Met Ala Gly Val Glu Glu Val Ala
              1              5
gcc tcc ggg agc cac ctg aat ggc gac ctg gat cca gac gac agg gaa      102
Ala Ser Gly Ser His Leu Asn Gly Asp Leu Asp Pro Asp Asp Arg Glu
              10              15              20
gaa gga gct gcc tct acg gct gag gaa gca gcc aag aaa aaa aga cga      150
Glu Gly Ala Ala Ser Thr Ala Glu Glu Ala Ala Lys Lys Lys Arg Arg
              25              30              35              40

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aag aag aag aag agc aaa ggg cct tct gca gca ggg gaa cag gaa cct	198
Lys Lys Lys Lys Ser Lys Gly Pro Ser Ala Ala Gly Glu Gln Glu Pro	
45 50 55	
gat aaa gaa tca gga gcc tca gtg gat gaa gta gca aga cag ttg gaa	246
Asp Lys Glu Ser Gly Ala Ser Val Asp Glu Val Ala Arg Gln Leu Glu	
60 65 70	
aga tca gca ttg gaa gat aaa gaa aga gat gaa gat gat gaa gat gga	294
Arg Ser Ala Leu Glu Asp Lys Glu Arg Asp Glu Asp Asp Glu Asp Gly	
75 80 85	
gat ggc gat gga gat gga gca act gga aag aag aag aaa aag aag aag	342
Asp Gly Asp Gly Asp Gly Ala Thr Gly Lys Lys Lys Lys Lys Lys Lys	
90 95 100	
aag aag aga gga cca aaa gtt caa aca gac cct ccc tca gtt cca ata	390
Lys Lys Arg Gly Pro Lys Val Gln Thr Asp Pro Pro Ser Val Pro Ile	
105 110 115 120	
tgt gac ctg tat cct aat ggt gta ttt ccc aaa gga caa gaa tgc gaa	438
Cys Asp Leu Tyr Pro Asn Gly Val Phe Pro Lys Gly Gln Glu Cys Glu	
125 130 135	
tac cca ccc aca caa gat ggg cga aca gct gct tgg aga act aca agt	486
Tyr Pro Pro Thr Gln Asp Gly Arg Thr Ala Ala Trp Arg Thr Thr Ser	
140 145 150	
gaa gaa aag aaa gca tta gat cag gca agt gaa gag att tgg aat gat	534
Glu Glu Lys Lys Ala Leu Asp Gln Ala Ser Glu Glu Ile Trp Asn Asp	
155 160 165	
ttt cga gaa gct gca gaa gca cat cga caa gtt aga aaa tac gta atg	582
Phe Arg Glu Ala Ala Glu Ala His Arg Gln Val Arg Lys Tyr Val Met	
170 175 180	
agc tgg atc aag cct ggg atg aca atg ata gaa atc tgt gaa aag ttg	630
Ser Trp Ile Lys Pro Gly Met Thr Met Ile Glu Ile Cys Glu Lys Leu	
185 190 195 200	
gaa gac tgn tca cgc aag tta ata aaa gag aat gga tta aat gca ggc	678
Glu Asp Xaa Ser Arg Lys Leu Ile Lys Glu Asn Gly Leu Asn Ala Gly	
205 210 215	
ctg gca ttt cct act gga tgt tct ctc a	706
Leu Ala Phe Pro Thr Gly Cys Ser Leu	
220 225	

<210> 1961

<211> 265

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 105..263

<400> 1961

agggtcagggt ccacagcatg cacctggaga catcaaattgt ggaggcctga attttgatct	60
atgtttctacc tacatccagc tggctgaaag tacttgagga tcac atg acc ctg gac	116
Met Thr Leu Asp	
1	

atg gat gct gtt ctg tca gat ttt gtc cgt tcc aca gga gca gag cca	164
Met Asp Ala Val Leu Ser Asp Phe Val Arg Ser Thr Gly Ala Glu Pro	

5 10 15 20
 ggg cta gcg cga gat ctc cta gaa gga aag aat tgg gat gtg aat gcc 212
 Gly Leu Ala Arg Asp Leu Leu Glu Gly Lys Asn Trp Asp Val Asn Ala
 25 30 35
 gcc ctc agt gat ttt gaa cag cta mgt caa gtc cat gct gga aac cta 260
 Ala Leu Ser Asp Phe Glu Gln Leu Xaa Gln Val His Ala Gly Asn Leu
 40 45 50
 ccc cc 265
 Pro

<210> 1962
 <211> 385
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 120..383

<400> 1962
 ccagtcctttg gtcgggtttc ggcggcttca gtgctcgggg aggaggcagt gacggccggt 60
 gagattggaa gtggcggcgg cggcaggcgg cagagggag tccgaggta tgcgtctca 119
 atg rwc ccg cgg aaa cgc tac ggg tct aag aac acg gat cag ggt gtc 167
 Met Xaa Pro Arg Lys Arg Tyr Gly Ser Lys Asn Thr Asp Gln Gly Val
 1 5 10 15
 tac ctg ggt ctc tca aag aca cag gtc ctg tcc cct gca act gct ggc 215
 Tyr Leu Gly Leu Ser Lys Thr Gln Val Leu Ser Pro Ala Thr Ala Gly
 20 25 30
 agt agc agc agc gac atc gcc cct ctg ccc ccc cca gtg acc ctc gtc 263
 Ser Ser Ser Ser Asp Ile Ala Pro Leu Pro Pro Pro Val Thr Leu Val
 35 40 45
 cct cca cct ccc gac acc atg tcc tgc cgg gat cgg acc cag gag ttt 311
 Pro Pro Pro Pro Asp Thr Met Ser Cys Arg Asp Arg Thr Gln Glu Phe
 50 55 60
 ctg tct gcc tgc aag tgc ctg cag acc cgt cag aat gga atc cag aca 359
 Leu Ser Ala Cys Lys Ser Leu Gln Thr Arg Gln Asn Gly Ile Gln Thr
 65 70 75 80
 aat aag cca gct ttg cgt gct gcc cg 385
 Asn Lys Pro Ala Leu Arg Ala Ala
 85

<210> 1963
 <211> 456
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 126..455

<400> 1963
 tgggtgtgtca gccgtccctg catgcccggt tgcttctctt ttrggggcgg ggtctagcaa 60

gagcaggtgt gggtttagga gatattctccg gagcatttgg ataatgtgac agttggaatg 120
 cagtg atg tcg act ctt tgc cca ccg cca tct cca gct gtt gcc aag aca 170
 Met Ser Thr Leu Cys Pro Pro Pro Ser Pro Ala Val Ala Lys Thr
 1 5 10 15
 gag att gct tta agt ggc aaa tca cct tta tta gca gct act ttt gct 218
 Glu Ile Ala Leu Ser Gly Lys Ser Pro Leu Leu Ala Ala Thr Phe Ala
 20 25 30
 tac tgg gac aat att ctt ggt cct aga gta agg cac att tgg gct cca 266
 Tyr Trp Asp Asn Ile Leu Gly Pro Arg Val Arg His Ile Trp Ala Pro
 35 40 45
 aag aca gaa cag gta ctt ctc agt gat gga gaa ata act ttt ctt gcc 314
 Lys Thr Glu Gln Val Leu Leu Ser Asp Gly Glu Ile Thr Phe Leu Ala
 50 55 60
 aac cac act cta aat gga gaa atc ctt cga aat gca gag agt ggt gct 362
 Asn His Thr Leu Asn Gly Glu Ile Leu Arg Asn Ala Glu Ser Gly Ala
 65 70 75
 ata gat gta aag ttt ttt gtc ttg tct gaa aag gga gtg att att gtt 410
 Ile Asp Val Lys Phe Phe Val Leu Ser Glu Lys Gly Val Ile Ile Val
 80 85 90 95
 tca tta atc ttt gat gga aac tgg aat ggg gat ygc agc aca tat g 456
 Ser Leu Ile Phe Asp Gly Asn Trp Asn Gly Asp Xaa Ser Thr Tyr
 100 105 110

 <210> 1964
 <211> 348
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> CDS
 <222> 27..347

 <400> 1964
 aggcccgctcc ccgagccctg ccaacc atg gtg aac ttg ggt ctg tcc cgg gtg 53
 Met Val Asn Leu Gly Leu Ser Arg Val
 1 5
 gac gac gcc gtg gct gcc aag cac ccg gga ctc ggg gag tat gcc gca 101
 Asp Asp Ala Val Ala Ala Lys His Pro Gly Leu Gly Glu Tyr Ala Ala
 10 15 20 25
 tgc cag tca cac gcc ttc atg aag ggc gtt ttc acc ttc gtc aca ggc 149
 Cys Gln Ser His Ala Phe Met Lys Gly Val Phe Thr Phe Val Thr Gly
 30 35 40
 acc ggc atg gcc ttt ggc ttg cag atg ttc att cag agg aag ttg act 197
 Thr Gly Met Ala Phe Gly Leu Gln Met Phe Ile Gln Arg Lys Leu Thr
 45 50 55
 ggg ttg ctt ctc tat tta ttn gac aat aat aat gta cat ttc ann knt 245
 Gly Leu Leu Leu Tyr Leu Xaa Asp Asn Asn Asn Val His Phe Xaa Xaa
 60 65 70
 ctg gtt cta ggr cat tca ggg aag ggc gag tgg ggg ccc gag ggg tcc 293
 Leu Val Leu Gly His Ser Gly Lys Gly Glu Trp Gly Pro Glu Gly Ser
 75 80 85
 ctg ccc cam ccg sct ggt gtc ctg ttg tat ctc tgt gta agt grt gct 341
 Leu Pro Xaa Pro Xaa Gly Val Leu Leu Tyr Leu Cys Val Ser Xaa Ala

90 95 100 105 348
 cgt gac a
 Arg Asp

<210> 1965
 <211> 507
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 122..505

<400> 1965
 ctactctagt ccaagtgtag tcctggcctc atacaatcat gatggcacca ggaatatctt 60
 agatgatttt agagaagctt acttttggct aaggcaaat acagatgaac atgcacgagt 120
 a atg tct tgg tgg gat tat ggc tat cag ata gct gga atg gct aat aga 169
 Met Ser Trp Trp Asp Tyr Gly Tyr Gln Ile Ala Gly Met Ala Asn Arg
 1 5 10 15
 act acg ttg gtg gat aat aac acc tgg aat aac agc cac ata gca ctg 217
 Thr Thr Leu Val Asp Asn Asn Thr Trp Asn Asn Ser His Ile Ala Leu
 20 25 30
 gtg gga aaa gct atg tct tct aat gaa aca gca gcc tat aaa atc atg 265
 Val Gly Lys Ala Met Ser Ser Asn Glu Thr Ala Ala Tyr Lys Ile Met
 35 40 45
 agg act cta gat gta gat tat gtt ttg gtt att ttt gga ggg gtt att 313
 Arg Thr Leu Asp Val Asp Tyr Val Leu Val Ile Phe Gly Gly Val Ile
 50 55 60
 ggc tat tct ggt gat gat atc aac aaa ttt ctc tgg atg gtt agg ata 361
 Gly Tyr Ser Gly Asp Asp Ile Asn Lys Phe Leu Trp Met Val Arg Ile
 65 70 75 80
 gct gaa gga gaa cat ccc aaa gac att cgg gaa agt gac tat ttt acc 409
 Ala Glu Gly Glu His Pro Lys Asp Ile Arg Glu Ser Asp Tyr Phe Thr
 85 90 95
 cca cag gga gaa ttc cgt gta gac aaa gca gga tcc cct act ttg ttg 457
 Pro Gln Gly Glu Phe Arg Val Asp Lys Ala Gly Ser Pro Thr Leu Leu
 100 105 110
 aat tgc ctt atg tat aaa atg tca tac tac aga ttt gga gaa atg cag 505
 Asn Cys Leu Met Tyr Lys Met Ser Tyr Tyr Arg Phe Gly Glu Met Gln
 115 120 125
 ct 507

<210> 1966
 <211> 420
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 238..420

<400> 1966

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acttccttgc tgggttgctaa gacactcttg tttcgctcct tgacaaccct ggcggrggtt      60
cgctggctgc ggccccggct cgggcccccg cagagcagca cccccgggg aaagacattt      120
tctgctccca ccgagttggc agggcctgct tcctgaatct cctgggtgtg tcttaactgc      180
cagtcaccagc acctcctgaa agccccactc tcctccagtg gtcacagtgg aaggatc      237
atg gga gaa aca gaa ggg aag aaa gat gag gct gac tat aag cga ctg      285
Met Gly Glu Thr Glu Gly Lys Lys Asp Glu Ala Asp Tyr Lys Arg Leu
1          5          10          15
cag acc ttc cct ctg gtc agg cac tcg gac atg cca gag gag atg cgc      333
Gln Thr Phe Pro Leu Val Arg His Ser Asp Met Pro Glu Glu Met Arg
          20          25          30
gtg gag acc atg gag cta tgt gtc aca gcc tgt gag aaa ttc tcc aac      381
Val Glu Thr Met Glu Leu Cys Val Thr Ala Cys Glu Lys Phe Ser Asn
          35          40          45
aac aac gag agc gcc gcc aag atg atc aaa gag aca atc      420
Asn Asn Glu Ser Ala Ala Lys Met Ile Lys Glu Thr Ile
          50          55          60

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<210> 1967
 <211> 323
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 70..321

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<400> 1967
gaaaaacgcg cgccgagacc cgctcctgca gtattagttc ttgcagctgg tgggtggcggc      60
tgaggcgggc atg gat ctc agc gag ctg gag aga gac aat aca ggc cgc tgt      111
Met Asp Leu Ser Glu Leu Glu Arg Asp Asn Thr Gly Arg Cys
1          5          10
cgc ctg agt tcg cct gtg ccc gcg gtg tgc cgc aag gag cct tgc gtc      159
Arg Leu Ser Ser Pro Val Pro Ala Val Cys Arg Lys Glu Pro Cys Val
15          20          25          30
ctg ggc gtc gat gag gcg ggc agg ggc ccc gtg ctg ggc ccc atg gtc      207
Leu Gly Val Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met Val
          35          40          45
tac gcc atc tgt tat tgt ccc ctg cct cgc ctg gca gat ctg gag gcg      255
Tyr Ala Ile Cys Tyr Cys Pro Leu Pro Arg Leu Ala Asp Leu Glu Ala
          50          55          60
ctg aaa gtg gca gac tca aag acc cta ttg gag agc gag cgg gaa agg      303
Leu Lys Val Ala Asp Ser Lys Thr Leu Leu Glu Ser Glu Arg Glu Arg
          65          70          75
ctg ttt gcg aaa atg gag ga      323
Leu Phe Ala Lys Met Glu
80

```

<210> 1968
 <211> 345
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 84..344

<400> 1968

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atccacatcc gcatcgctcgt cctccccgac cgcgtcctgc agcagctgcc agtggagccg      60
cctgacaagg actgccatcc acc atg gtg aag ctg ggc tgc agc ttc tct ggg      113
                        Met Val Lys Leu Gly Cys Ser Phe Ser Gly
                        1         5         10
aag cca ggt aaa gac cct ggg gac mag gat ggg gct gcc atg gac agt      161
Lys Pro Gly Lys Asp Pro Gly Asp Xaa Asp Gly Ala Ala Met Asp Ser
                        15         20         25
gtg cct ctg atc agc ccc ttg gac atc agc cag ctc cag ccg cca ctc      209
Val Pro Leu Ile Ser Pro Leu Asp Ile Ser Gln Leu Gln Pro Pro Leu
                        30         35         40
cct gac cag gtg gtc atc aag aca cag aca gaa tac cag ctg tcc tcc      257
Pro Asp Gln Val Val Ile Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser
                        45         50         55
cca gac cag cag aat ttc cct gac ctg gag ggc cag agg ctg aac tgc      305
Pro Asp Gln Gln Asn Phe Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys
                        60         65         70
agc caa gag gaa ggg cgc agg str mcc aca cnn acc cca c      345
Ser Gln Glu Glu Gly Arg Arg Xaa Xaa Thr Xaa Thr Pro
                        75         80         85

```

<210> 1969
<211> 472
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 84..470

<400> 1969

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atccacatcc gcatcgctcgt cctccccgac cgcgtcctgc agcagctgcc agtggagccg      60
cctgacaagg actgccatcc acc atg gtg aag ctg ggc tgc agc ttc tct ggg      113
                        Met Val Lys Leu Gly Cys Ser Phe Ser Gly
                        1         5         10
aag cca ggt aaa gac cct ggg gac cag gat ggg gct gcc atg gac agt      161
Lys Pro Gly Lys Asp Pro Gly Asp Gln Asp Gly Ala Ala Met Asp Ser
                        15         20         25
gtg cct ctg atc agc ccc ttg gac atc agc cag ctc cag ccg cca ctc      209
Val Pro Leu Ile Ser Pro Leu Asp Ile Ser Gln Leu Gln Pro Pro Leu
                        30         35         40
cct gac cag gtg gtc atc aag aca cag aca gaa tac cag ctg tcc tcc      257
Pro Asp Gln Val Val Ile Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser
                        45         50         55
cca gac cag cag aat ttc cct gac ctg gag ggc cag agg ctg aac tgc      305
Pro Asp Gln Gln Asn Phe Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys
                        60         65         70
agc cac cca gag gaa ggg cgc agg ctg ccc acc gca cgg atg atc gcc      353
Ser His Pro Glu Glu Gly Arg Arg Leu Pro Thr Ala Arg Met Ile Ala

```

75	80	85	90	
ttc gcc atg gcg cta ctg ggc tgc gtg ctg atc atg tac aag gcc atc				401
Phe Ala Met Ala Leu Leu Gly Cys Val Leu Ile Met Tyr Lys Ala Ile				
	95	100	105	
tgg tac gac cag ttc acc tgc ccc gac ggc ttc ctg ctg cgg cac aag				449
Trp Tyr Asp Gln Phe Thr Cys Pro Asp Gly Phe Leu Leu Arg His Lys				
	110	115	120	
atc tgc acg ccg ctg acc ctg ga				472
Ile Cys Thr Pro Leu Thr Leu				
	125			

<210> 1970

<211> 445

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 124..444

<400> 1970

aattgcctcg gtgatgtcgt gggttcaagc agcctccttg atccaggggcc ctggagacaa	60
aggggacgtg tttgacgaag aagcagacga gtcgctcctg gcgcanggga atggcagagt	120
aac atg caa aga cga gtc aaa gaa ggt tat aga gat gga ata gat gct	168
Met Gln Arg Arg Val Lys Glu Gly Tyr Arg Asp Gly Ile Asp Ala	
1 5 10 15	
ggc aaa gca gtt act ctt caa cag ggc ttc aat caa ggt tat aag aaa	216
Gly Lys Ala Val Thr Leu Gln Gln Gly Phe Asn Gln Gly Tyr Lys Lys	
20 25 30	
ggt gca gaa gtc att tta aac tat gga cga ctc cga gga aca ttg agt	264
Gly Ala Glu Val Ile Leu Asn Tyr Gly Arg Leu Arg Gly Thr Leu Ser	
35 40 45	
gct ttg ctc tcc tgg tgt cac ctt cat aat aat aat tca act ttg atc	312
Ala Leu Leu Ser Trp Cys His Leu His Asn Asn Asn Ser Thr Leu Ile	
50 55 60	
aat aaa ata aac aat ctt ctg gat gca gtt ggc cag tgt gaa gag tat	360
Asn Lys Ile Asn Asn Leu Leu Asp Ala Val Gly Gln Cys Glu Glu Tyr	
65 70 75	
gtg ctc aaa cat ctg aaa tca atc act cca mcg tcc cat gtt gta gat	408
Val Leu Lys His Leu Lys Ser Ile Thr Pro Xaa Ser His Val Val Asp	
80 85 90 95	
tta ttg gac tcc att gag gat atg gac ctt tgt cat g	445
Leu Leu Asp Ser Ile Glu Asp Met Asp Leu Cys His	
100 105	

<210> 1971

<211> 285

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 78..284

<400> 1971

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ggaagtagcc ggaatctctg aaagactgac cgactgactc tgacaggatc cggggctgag      60
ggaaggaggc ggcggcc atg gag ttg ggc gag ctg ctc tac aac aag tct      110
                Met Glu Leu Gly Glu Leu Leu Tyr Asn Lys Ser
                1          5          10
gag tac atc gag acg gca tct ggg aac aaa gtc agt cgc cag tca gtg      158
Glu Tyr Ile Glu Thr Ala Ser Gly Asn Lys Val Ser Arg Gln Ser Val
                15          20          25
ttg tgt gga agc cag aac atc gtt ctc aat ggc aag acc att gtg atg      206
Leu Cys Gly Ser Gln Asn Ile Val Leu Asn Gly Lys Thr Ile Val Met
                30          35          40
aat gac tgt att atc cga ggg gat ctg gca aat gta aga gtt gga cgt      254
Asn Asp Cys Ile Ile Arg Gly Asp Leu Ala Asn Val Arg Val Gly Arg
                45          50          55
cat tgt gtt gtg aaa agt cgt agt gtc ata a      285
His Cys Val Val Lys Ser Arg Ser Val Ile
        60          65

```

<210> 1972

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 20..388

<400> 1972

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cccttacggc gccggagag atg gcg gag ttg gac atc ggg cag cac tgc cag      52
                Met Ala Glu Leu Asp Ile Gly Gln His Cys Gln
                1          5          10
gtg gag cat tgc cgg cag cga gat ttt ctt cca ttt gtg tgt gat gat      100
Val Glu His Cys Arg Gln Arg Asp Phe Leu Pro Phe Val Cys Asp Asp
                15          20          25
tgt tca gga ata ttt tgc ctt gaa cac aga agc agg gag tct cat ggt      148
Cys Ser Gly Ile Phe Cys Leu Glu His Arg Ser Arg Glu Ser His Gly
                30          35          40
tgt cct gag gtg act gta atc aat gag aga ctg aag aca gat caa cat      196
Cys Pro Glu Val Thr Val Ile Asn Glu Arg Leu Lys Thr Asp Gln His
                45          50          55
aca tct tac cca tgc tct ttc aaa gac tgt gct gag aga gaa ctt gtg      244
Thr Ser Tyr Pro Cys Ser Phe Lys Asp Cys Ala Glu Arg Glu Leu Val
        60          65          70          75
gca gtt ata tgt cct tat tgt gag aag aat ttt tgc ctg aga cac cgt      292
Ala Val Ile Cys Pro Tyr Cys Glu Lys Asn Phe Cys Leu Arg His Arg
                80          85          90
cat cag tca gat cat gag tgt gaa aaa ctg gaa atc cca agc tcg aat      340
His Gln Ser Asp His Glu Cys Glu Lys Leu Glu Ile Pro Ser Ser Asn
                95          100          105
ggc tgc act cag aaa ctt gtt aaa grc att att gat tcc aag aca gga      388
Gly Cys Thr Gln Lys Leu Val Lys Xaa Ile Ile Asp Ser Lys Thr Gly

```


110 115 120 390

ga

<210> 1973
<211> 240
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 73..240

<400> 1973
ctttttgttc cggggccgca ggcggggcag gcccgacttt cgccgtcttc ttgtctactc 60
tccagaacgg cc atg att tcc caa ttc ttc att ctg tcc tcc aag ggg gac 111
Met Ile Ser Gln Phe Phe Ile Leu Ser Ser Lys Gly Asp
1 5 10
mcg ctc atc tac aaa gac ttc cgc ggg gac agt ggc ggc cgg gat gtg 159
Xaa Leu Ile Tyr Lys Asp Phe Arg Gly Asp Ser Gly Gly Arg Asp Val
15 20 25
gsc gag ctc ttc tac mgg aag ctg acg gga ctg cca gga kac gag tcc 207
Xaa Glu Leu Phe Tyr Arg Lys Leu Thr Gly Leu Pro Gly Xaa Glu Ser
30 35 40 45
ccg gtt gtc atg cat cac cat ggc cgt yat ttc 240
Pro Val Val Met His His His Gly Arg Xaa Phe
50 55

<210> 1974
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 124..399

<400> 1974
cccttcccgc ccgctcccct tttcccctca gtcgcctcgc gcctgcagtt tttggctttc 60
accccccaacc agtgacaaaa gacttgacca ctcaaagtc agctccccag aacactgctc 120
gac atg gac acc ggt gtg att gaa ggt gga tta aat gtc act ctc acc 168
Met Asp Thr Gly Val Ile Glu Gly Gly Leu Asn Val Thr Leu Thr
1 5 10 15
atc cgg cta ctt atg cat gga aag gaa gtt ggc agt atc atc gga aag 216
Ile Arg Leu Leu Met His Gly Lys Glu Val Gly Ser Ile Ile Gly Lys
20 25 30
aaa gga gaa tca gtt aag aag atg cgc gag gag agt ggt gca cgt atc 264
Lys Gly Glu Ser Val Lys Lys Met Arg Glu Glu Ser Gly Ala Arg Ile
35 40 45
aac atc tca gaa ggg aat tgt cct gag aga att atc act ttg gct gga 312
Asn Ile Ser Glu Gly Asn Cys Pro Glu Arg Ile Ile Thr Leu Ala Gly
50 55 60
ccc act aat gcc atc ttc aaa gcc ttt gct atg atc att gac aaa ctg 360

ayc ntg cga gat gga gaa aga gag cac gag gcg gca caa agg aaa gcc	194
Xaa Xaa Arg Asp Gly Glu Arg Glu His Glu Ala Ala Gln Arg Lys Ala	
50 55 60	
cca gga gca gak tct tgc cca tct ctc cct ctg agc atc tcg gam att	242
Pro Gly Ala Xaa Ser Cys Pro Ser Leu Pro Leu Ser Ile Ser Xaa Ile	
65 70 75	
ggg act gga tgt ctt tcg tca ctg gaa aac ctc aga ctg ccg wyg nng	290
Gly Thr Gly Cys Leu Ser Ser Leu Glu Asn Leu Arg Leu Pro Xaa Xaa	
80 85 90	
cgg gaa gag tca tcc cct cga gag ctc gag gac tcg akc gga gac cag	338
Arg Glu Glu Ser Ser Pro Arg Glu Leu Glu Asp Ser Xaa Gly Asp Gln	
95 100 105	
ggc cgg tgc ggt ccc aca nac cag gga tcc	368
Gly Arg Cys Gly Pro Thr Xaa Gln Gly Ser	
110 115	

<210> 1977
 <211> 447
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 34..447

<400> 1977	
gttttttggc agcggataga ggacacgacc aag atg gcg gcg gtg tct ggc ttg	54
Met Ala Ala Val Ser Gly Leu	
1 5	
gtg cgg aga ccc ctt cgg gag gtc tcc ggg ctg ctg aag agg cgc ttt	102
Val Arg Arg Pro Leu Arg Glu Val Ser Gly Leu Leu Lys Arg Arg Phe	
10 15 20	
cac tgg acc gcg ccg gct gcg ctg cag gtg aca gtt cgt gat gct ata	150
His Trp Thr Ala Pro Ala Ala Leu Gln Val Thr Val Arg Asp Ala Ile	
25 30 35	
aat cag ggt atg gat gag gag ctg gaa aga gat gag aag gta ttt ctg	198
Asn Gln Gly Met Asp Glu Glu Leu Glu Arg Asp Glu Lys Val Phe Leu	
40 45 50 55	
ctt gga gaa gaa gtt gcc cag tat gat ggg gca tac aag gtt agt cga	246
Leu Gly Glu Glu Val Ala Gln Tyr Asp Gly Ala Tyr Lys Val Ser Arg	
60 65 70	
ggg ctg tgg aag aaa tat gga gac aag agg att att gac act ccc ata	294
Gly Leu Trp Lys Lys Tyr Gly Asp Lys Arg Ile Ile Asp Thr Pro Ile	
75 80 85	
tca gag atg ggc ttt gct gga att gct gta ggt gca gct atg gct ggg	342
Ser Glu Met Gly Phe Ala Gly Ile Ala Val Gly Ala Ala Met Ala Gly	
90 95 100	
ttg cgg ccc att tgt gaa ttt atg acc ttc aat ttc tcc atg caa gcc	390
Leu Arg Pro Ile Cys Glu Phe Met Thr Phe Asn Phe Ser Met Gln Ala	
105 110 115	
att gac cag gtt ata aac tca gct gcc aag acc tac tac atg tct ggt	438
Ile Asp Gln Val Ile Asn Ser Ala Ala Lys Thr Tyr Tyr Met Ser Gly	
120 125 130 135	

ggc ttc agc
Gly Phe Ser

447

<210> 1978
<211> 333
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 114..332

<400> 1978
gcggaacttt ggtgcagcct gatgcgcaac gtggggactc aggcgcgctg ggcggcagga 60
gttgcttccg gccgtgttgg tggcttgaat tgagaagccg cgactaaggg aag atg 116
Met
1

gag aca ata ctg gag cag cag cgg cgc tat cat gag gag aag gaa cgg 164
Glu Thr Ile Leu Glu Gln Gln Arg Arg Tyr His Glu Glu Lys Glu Arg
5 10 15

ctc atg gac gtc atg gct aaa gag atg ctc acc aag aag tcc acg ctc 212
Leu Met Asp Val Met Ala Lys Glu Met Leu Thr Lys Lys Ser Thr Leu
20 25 30

cgg gac cag atc aat tct gat cac cgc act cgg gcc atg caa gat agg 260
Arg Asp Gln Ile Asn Ser Asp His Arg Thr Arg Ala Met Gln Asp Arg
35 40 45

tat atg gag gtc agt ggg aac ctg agg gat ttg tat gat gat aag gat 308
Tyr Met Glu Val Ser Gly Asn Leu Arg Asp Leu Tyr Asp Asp Lys Asp
50 55 60 65

gga tta cga aag gag gag ctc aat g 333
Gly Leu Arg Lys Glu Glu Leu Asn
70

<210> 1979
<211> 535
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 2..535

<400> 1979
g atg atg cgt cgt tac cag gat gcc atc cgg gtc ttc gcc aac atc ctc 49
Met Met Arg Arg Tyr Gln Asp Ala Ile Arg Val Phe Ala Asn Ile Leu
1 5 10 15

ctc tac atc cag agg acc aag agc atg ttc cag agg acc acg tac aag 97
Leu Tyr Ile Gln Arg Thr Lys Ser Met Phe Gln Arg Thr Thr Tyr Lys
20 25 30

tat gag atg att aac aag cag aat gag cag atg cat gcg ctg ctg gcc 145
Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His Ala Leu Leu Ala
35 40 45

```

att gcc ctc acg atg tac ccc atg cgt atc gat gag agc att cac ctc      193
Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu Ser Ile His Leu
   50                               55                               60
cag ctg cgg gag aaa tat ggg gac aag atg ttg cgc atg cag aaa ggt      241
Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg Met Gln Lys Gly
   65                               70                               75                               80
gac cca caa gtc tat gaa gaa ctt ttc agt tac tcc tgc ccc aag ttc      289
Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser Cys Pro Lys Phe
   85                               90                               95
ctg tcg cct gta gtg ccc aac tat gat aat gtg cac ccc aac tac cac      337
Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His Pro Asn Tyr His
   100                              105                              110
aaa gag ccc ttc ctg cag cag ctg aag gtg ttt tct gat gaa gta cag      385
Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser Asp Glu Val Gln
   115                              120                              125
cag cag gcc cag ctt tca acc atc cgc agc ttc ctg aag ctc tac acc      433
Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu Lys Leu Tyr Thr
   130                              135                              140
acc atg cct gtg gcc aag ctg gct ggc ttc ctg gac ctc aca gag cag      481
Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp Leu Thr Glu Gln
   145                              150                              155                              160
gag ttc cgg atc cag ctt ctt gtc gtc aaa cac aag atg aag aam ctc      529
Glu Phe Arg Ile Gln Leu Leu Val Val Lys His Lys Met Lys Xaa Leu
   165                              170                              175
gtg tgg
Val Trp

```

<210> 1980
 <211> 307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 135..305

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<400> 1980
attattatta tcaaataccaa tcagtgaag aaaggcaaac aagtgacttg gcacttctgc      60
ctcagtcag gaggtcctt gatttatggt agctttggac ttgcttcccc gkctgactgt      120
ccttgacttc taga atg gaa gaa gct gag ctg gtg aag gga aga ctc cag      170
               Met Glu Glu Ala Glu Leu Val Lys Gly Arg Leu Gln
                   1                   5                   10
gcc atc aca gat aaa aga aaa ata cag gaa gaa atc tca cag aag cgt      218
Ala Ile Thr Asp Lys Arg Lys Ile Gln Glu Glu Ile Ser Gln Lys Arg
   15                   20                   25
ctg aaa ata gag gaa gac aaa cta aag cac cag cat ttg aag aaa aag      266
Leu Lys Ile Glu Glu Asp Lys Leu Lys His Gln His Leu Lys Lys Lys
   30                   35                   40
gcc ttg agg gag aaa tgg ctt cta gat gga atc agc agc gg      307
Ala Leu Arg Glu Lys Trp Leu Leu Asp Gly Ile Ser Ser
   45                   50                   55

```

<210> 1981

<211> 378
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 206..376

<400> 1981
 attacatgtg tctgtctggc ctgatctgtg catctgctcg gagacgctcc tgacaagtcg 60
 ggaatttctc tatttctcca ctggtgcaaa gagcggattt ctccctgctt ctcttctgtc 120
 acccccgcgc ctctcccccga ggaggctcct tgatttatgg tagctttgga cttgcttccc 180
 cgtctgactg tccttgactt ctaga atg gaa gaa gct gag ctg gtg aag gga 232
 Met Glu Glu Ala Glu Leu Val Lys Gly
 1 5
 aga ctc cag gcc atc aca gat aaa aga aaa ata cag gaa gaa atc tca 280
 Arg Leu Gln Ala Ile Thr Asp Lys Arg Lys Ile Gln Glu Glu Ile Ser
 10 15 20 25
 cag aag cgt ctg aaa ata gag gaa gac aaa cta aag cac cag cat ttg 328
 Gln Lys Arg Leu Lys Ile Glu Glu Asp Lys Leu Lys His Gln His Leu
 30 35 40
 aag aaa aag gcc ttg agg gag aaa tgg ctt cta gat gga atc agc agc 376
 Lys Lys Lys Ala Leu Arg Glu Lys Trp Leu Leu Asp Gly Ile Ser Ser
 45 50 55
 gg 378

<210> 1982
 <211> 276
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 97..276

<400> 1982
 gtgattgtct cgtcctggga tcgcgagagg tgtatataca gggaggccag gcagcctgga 60
 gttagccgac cgttgcgaga cgttgagctg cggaag atg agt cca aag ccg aga 114
 Met Ser Pro Lys Pro Arg
 1 5
 gcc tcg gga cct ccg gcc aag gcc acg gag gca gga aag agg aag tcc 162
 Ala Ser Gly Pro Pro Ala Lys Ala Thr Glu Ala Gly Lys Arg Lys Ser
 10 15 20
 tcc tct cag ccg agc ccc agt gac ccg aag aag aag act acc aag gtg 210
 Ser Ser Gln Pro Ser Pro Ser Asp Pro Lys Lys Lys Thr Thr Lys Val
 25 30 35
 gcc aag aag gga aaa gca gtt cgt aga ggg aga cgc ggg aag aaa ggg 258
 Ala Lys Lys Gly Lys Ala Val Arg Arg Gly Arg Arg Gly Lys Lys Gly
 40 45 50
 gct gcg aca aag atg gcg 276
 Ala Ala Thr Lys Met Ala
 55 60

<210> 1983
 <211> 242
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 89..241

<400> 1983
 ctacttcacg gatccgcttc aaagaggcag ctgcagtgga gaatcatggt aagctcggct 60
 actgcggaga gcccaaggta gcccaata atg gat ttt gat gag cgt ggt ccc 112
 Met Asp Phe Asp Glu Arg Gly Pro
 1 5
 tgc tcc tct aac atg tat ttg cca agt tgt act tac tac gtc tcg ggt 160
 Cys Ser Ser Asn Met Tyr Leu Pro Ser Cys Thr Tyr Tyr Val Ser Gly
 10 15 20
 cca gat ttc tcc agc ctc cct tct ttt ctg cnc cag acc ccg tct tcg 208
 Pro Asp Phe Ser Ser Leu Pro Ser Phe Leu Xaa Gln Thr Pro Ser Ser
 25 30 35 40
 cgc cca atg aca tac tcc tcc tcc aac ctg c 242
 Arg Pro Met Thr Tyr Ser Tyr Ser Ser Asn Leu
 45 50

<210> 1984
 <211> 413
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 159..413

<400> 1984
 agtgcgtcat cagagagcgc cggaagcggc ccgagaatga agagtgtgat ctaccatgca 60
 ttgtctcaga aagaggcgaa tgactccgat gtccagcctt caggagcaca gcgggccgag 120
 gccttcgtga gggccttcct gaagcgcasa cgccccgc atg agc ccg cag gcc cgc 176
 Met Ser Pro Gln Ala Arg
 1 5
 gag gac cag ctg cag cgc aag gcg gtg gtc ctg gag tac ttc acc cgc 224
 Glu Asp Gln Leu Gln Arg Lys Ala Val Val Leu Glu Tyr Phe Thr Arg
 10 15 20
 cac aag cgc aag gag aag aag aag aaa gcc aaa ggc ctc tct gcc agg 272
 His Lys Arg Lys Glu Lys Lys Lys Lys Ala Lys Gly Leu Ser Ala Arg
 25 30 35
 caa agg mgg gag ctg cgg ctc ttt gac att aaa cca gag cag cag aga 320
 Gln Arg Arg Glu Leu Arg Leu Phe Asp Ile Lys Pro Glu Gln Gln Arg
 40 45 50
 tac agc ctt ttc ctc cct ctc cat gaa cng tgg maa cag tac atc agg 368
 Tyr Ser Leu Phe Leu Pro Leu His Glu Xaa Trp Xaa Gln Tyr Ile Arg
 55 60 65 70

wcc tgt gca gtg ggc tca agc aga cac gca gcc aca gat gat tca 413
 Xaa Cys Ala Val Gly Ser Ser Arg His Ala Ala Thr Asp Asp Ser
 75 80 85

<210> 1985
 <211> 328
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 39..326

<400> 1985
 aaaagaggct gaagctccac ctgggagggg aggcagaa atg gag gaa cgg gcg ttc 56
 Met Glu Glu Arg Ala Phe
 1 5

gtc aac ccc ttc ccg gac tac gag gcc gcc gcc ggg gcg ctg ctc gcc 104
 Val Asn Pro Phe Pro Asp Tyr Glu Ala Ala Ala Gly Ala Leu Leu Ala
 10 15 20

tcc gga gcg gcc gaa gag aca ggc tgt gtt cgt ccc ccg gcg acc ack 152
 Ser Gly Ala Ala Glu Glu Thr Gly Cys Val Arg Pro Pro Ala Thr Thr
 25 30 35

gat gag ccc ggc ctc cct ttt cat cag gac ggg aag atc att cat aat 200
 Asp Glu Pro Gly Leu Pro Phe His Gln Asp Gly Lys Ile Ile His Asn
 40 45 50

ttc ata aga cgg atc cag acc aaa att aaa gat ctt ctg cag caa atg 248
 Phe Ile Arg Arg Ile Gln Thr Lys Ile Lys Asp Leu Leu Gln Gln Met
 55 60 65 70

gaa gaa ggg ctg aag aca gct gat ccc cat gac tgc tct gct tat act 296
 Glu Glu Gly Leu Lys Thr Ala Asp Pro His Asp Cys Ser Ala Tyr Thr
 75 80 85

ggc tgg aca ggc ata gcc ttt tgt acc tgc ag 328
 Gly Trp Thr Gly Ile Ala Phe Cys Thr Cys
 90 95

<210> 1986
 <211> 465
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 23..463

<400> 1986
 gaagcggggg tgggatctga ac atg gcg gcg gtg gta gct gct acg gcg ctg 52
 Met Ala Ala Val Val Ala Ala Thr Ala Leu
 1 5 10

aag ggc cgg ggg gcg aga aat gcc cgc gtc ctc cgg ggg att ctc gca 100
 Lys Gly Arg Gly Ala Arg Asn Ala Arg Val Leu Arg Gly Ile Leu Ala
 15 20 25


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gga gcc aca gct aac aag gct tct cat aac agg acc cgg gcc ctg caa      148
Gly Ala Thr Ala Asn Lys Ala Ser His Asn Arg Thr Arg Ala Leu Gln
          30                      35                      40
agc cac agc tcc cca gag ggc aag gag gaa cct gaa ccc cta tcc ccg      196
Ser His Ser Ser Pro Glu Gly Lys Glu Glu Pro Glu Pro Leu Ser Pro
          45                      50                      55
gag ctg gaa tac att ccc aga aag agg ggc aag aac ccc atg aaa gct      244
Glu Leu Glu Tyr Ile Pro Arg Lys Arg Gly Lys Asn Pro Met Lys Ala
          60                      65                      70
gtg gga ctg gcc tgg gcc atc ggc ttc cct tgt ggt atc ctc ctc ttc      292
Val Gly Leu Ala Trp Ala Ile Gly Phe Pro Cys Gly Ile Leu Leu Phe
          75                      80                      85                      90
atc ctc acc aag cgg gaa gtg gac aag gac cgt gtg aag cag atg aag      340
Ile Leu Thr Lys Arg Glu Val Asp Lys Asp Arg Val Lys Gln Met Lys
          95                      100                      105
gct cgg cag aac atg cgg ttg tcc aac acg ggc gag tat gag agc cag      388
Ala Arg Gln Asn Met Arg Leu Ser Asn Thr Gly Glu Tyr Glu Ser Gln
          110                      115                      120
agg ttc agg gct tcc tcc cag agt gcc cgg tcc cct gat gtt ggg tct      436
Arg Phe Arg Ala Ser Ser Gln Ser Ala Pro Ser Pro Asp Val Gly Ser
          125                      130                      135
ggg gtg cag act gag gag cgc tgc gac cc      465
Gly Val Gln Thr Glu Glu Arg Cys Asp
          140                      145

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<210> 1987
 <211> 311
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 122..310

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<400> 1987
ctctcgtagc tcaccctggc cccaggccgg gcggctcgag ggggaggagt taccgccgtt      60
cttcggcacc agaacacacc atgatggctg tgacctaaaga ccctcaggaa gccccggggt      120
c atg gcc cag aag cac ccc ggagaaa aga ggg ttg tat gga gcc cac cac      169
Met Ala Gln Lys His Pro Gly Glu Arg Gly Leu Tyr Gly Ala His His
  1          5          10          15
agt ggt ggt gcc tcc ctc agg act tta gga ccc tcc gtg gac cct gaa      217
Ser Gly Gly Ala Ser Leu Arg Thr Leu Gly Pro Ser Val Asp Pro Glu
          20          25          30
ata cct tca ttc tca gga ctc agg gac tca gca ggg act gct cct aat      265
Ile Pro Ser Phe Ser Gly Leu Arg Asp Ser Ala Gly Thr Ala Pro Asn
          35          40          45
ggg acc cgc tgc ctc aca gag cac tct ggt cct aag cac aca cag c      311
Gly Thr Arg Cys Leu Thr Glu His Ser Gly Pro Lys His Thr Gln
          50          55          60

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<210> 1988
 <211> 371
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 84..371

<400> 1988

aaaagtagag aaagtggaag aggaaagagt taccacagcg agaaccggga accgggctgc 60
agactctccg gcccggggga ggg atg agt ttc act ctg gtt gcc cag gct gga 113
Met Ser Phe Thr Leu Val Ala Gln Ala Gly
1 5 10
gtg caa tgg cgc gat ctc ggc tca ccg caa cct ctg cct ccc gga ttc 161
Val Gln Trp Arg Asp Leu Gly Ser Pro Gln Pro Leu Pro Pro Gly Phe
15 20 25
aag cga ttc tcc tgc ttc agc ctc ccg agt agc tgg gat tac agg cat 209
Lys Arg Phe Ser Cys Phe Ser Leu Pro Ser Ser Trp Asp Tyr Arg His
30 35 40
gta cca ctg ctc ccg gct aat ctt gta ttt tta gta gag atg ggg ttt 257
Val Pro Leu Leu Pro Ala Asn Leu Val Phe Leu Val Glu Met Gly Phe
45 50 55
ctc cat gtt ggt ccg gct ggt ctc gga ctc cca acc tca ggt gat ctg 305
Leu His Val Gly Pro Ala Gly Leu Gly Leu Pro Thr Ser Gly Asp Leu
60 65 70
ccc gcc tcg gcc tcc caa agt gct ggg att ata ggt gtg agc cac cgc 353
Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Ile Gly Val Ser His Arg
75 80 85 90
tcc cag cca ttc ttt atg 371
Ser Gln Pro Phe Phe Met
95

<210> 1989

<211> 360

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 102..359

<400> 1989

attaacaaag atggtgctta tggggcaggt tccctaacag tcaggattcc ggttgagtt 60
tttctcccc gccccaaaga tacgtggttg cagacggaga n atg gag gcc aga gac 116
Met Glu Ala Arg Asp
1 5
aaa caa gta ctc cgc tca ctt cgc ctg gag ctg ggt gca gag gta ttg 164
Lys Gln Val Leu Arg Ser Leu Arg Leu Glu Leu Gly Ala Glu Val Leu
10 15 20
gtg gag gga ctg gtt ctt cag tac ctc tac cag gaa gga atc ttg acg 212
Val Glu Gly Leu Val Leu Gln Tyr Leu Tyr Gln Glu Gly Ile Leu Thr
25 30 35
gaa aac cat att caa gaa atc aat gct caa acc aca ggc ctc cgg aaa 260
Glu Asn His Ile Gln Glu Ile Asn Ala Gln Thr Thr Gly Leu Arg Lys

40	45	50	
aca atg ctc ctg ctg gat atc cta cct tcc agg ggc cct aaa gca ttt			308
Thr Met Leu Leu Leu Asp Ile Leu Pro Ser Arg Gly Pro Lys Ala Phe			
55	60	65	
gac ngc att cct aga ttc cct aca gga gtt tcc ctg ggt cag gga gaa			356
Asp Xaa Ile Pro Arg Phe Pro Thr Gly Val Ser Leu Gly Gln Gly Glu			
70	75	80	85
gct g			360
Ala			

<210> 1990

<211> 465

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 28..465

<400> 1990

actccgctgn gtctaggttc tggraag atg gcg aag gtc tca gag ctt tac gat	54
Met Ala Lys Val Ser Glu Leu Tyr Asp	
1 5	
gtc act tgg gaa gaa atg aga gat aaa atg aga aaa tgg aga gaa gaa	102
Val Thr Trp Glu Glu Met Arg Asp Lys Met Arg Lys Trp Arg Glu Glu	
10 15 20 25	
aac tca aga aat agt gag caa att gtg gaa gtt gga gaa gaa tta att	150
Asn Ser Arg Asn Ser Glu Gln Ile Val Glu Val Gly Glu Glu Leu Ile	
30 35 40	
aat gaa tat gct tct aag ctg gga gat gat att tgg atc ata tat gaa	198
Asn Glu Tyr Ala Ser Lys Leu Gly Asp Asp Ile Trp Ile Ile Tyr Glu	
45 50 55	
cag gtg atg att gca gca cta gac tat ggt cgg gat gac ttg gca ttg	246
Gln Val Met Ile Ala Ala Leu Asp Tyr Gly Arg Asp Asp Leu Ala Leu	
60 65 70	
ttt tgt ctt caa gag ctg aga aga cag ttc cct ggc agt cac aga gtc	294
Phe Cys Leu Gln Glu Leu Arg Arg Gln Phe Pro Gly Ser His Arg Val	
75 80 85	
aag cga tta aca ggc atg aga ttt gaa gcc atg gaa aga tat gat gat	342
Lys Arg Leu Thr Gly Met Arg Phe Glu Ala Met Glu Arg Tyr Asp Asp	
90 95 100 105	
gct ata cag cta tat gat agg att tta caa gaa gat cca act aac act	390
Ala Ile Gln Leu Tyr Asp Arg Ile Leu Gln Glu Asp Pro Thr Asn Thr	
110 115 120	
gct gca aga aag cgt aag att gcc att cga aaa gcc cag ggg aaa aat	438
Ala Ala Arg Lys Arg Lys Ile Ala Ile Arg Lys Ala Gln Gly Lys Asn	
125 130 135	
gtg gag gcc att cgg gag ctg aat gag	465
Val Glu Ala Ile Arg Glu Leu Asn Glu	
140 145	

<210> 1991

<211> 332

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 165..332

<400> 1991
acacatctca ctcaccccttc tactcgtgac gcttcccagc tctggctttt tgaaagcaaa 60
gatgagcaac actcaagctg agaggtccat aatagggcatg atcgacatgt ttcacaaata 120
caaccagacg tgatgacaag attgacaagc caagcctgct gacg atg atg aag gag 176
Met Met Lys Glu
1
aac ttc ccc aac ttc ctt agt gcc tgt gac aaa aag ggc aca aat tac 224
Asn Phe Pro Asn Phe Leu Ser Ala Cys Asp Lys Lys Gly Thr Asn Tyr
5 10 15 20
ctc gcc gat gtc ttt gag aaa aag gac aag aat gag gat aag aag att 272
Leu Ala Asp Val Phe Glu Lys Lys Asp Lys Asn Glu Asp Lys Lys Ile
25 30 35
gat ttt tct gag ttt ctg tmm ttg ctg gga gac ata gcc acr gam tac 320
Asp Phe Ser Glu Phe Leu Xaa Leu Leu Gly Asp Ile Ala Thr Xaa Tyr
40 45 50
cac asa agc aga 332
His Xaa Ser Arg
55

<210> 1992
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 42..392

<400> 1992
agttgtagtc gcgacccctga ggtaacggat aagttttatac c atg gat agc aca aag 56
Met Asp Ser Thr Lys
1 5
gag aag tgt gac agt tac aaa gat gat ctt ctg ctt agg atg gga ctt 104
Glu Lys Cys Asp Ser Tyr Lys Asp Asp Leu Leu Leu Arg Met Gly Leu
10 15 20
aat gat aat aaa gca gga atg gaa gga tta gat aaa gag aaa att aac 152
Asn Asp Asn Lys Ala Gly Met Glu Gly Leu Asp Lys Glu Lys Ile Asn
25 30 35
aaa att ata atg gaa gcc acg aag ggg tcc aga ttt tat gga aat gag 200
Lys Ile Ile Met Glu Ala Thr Lys Gly Ser Arg Phe Tyr Gly Asn Glu
40 45 50
ctc aag aaa gaa aag caa gtc aac caa cga att gaa aat atg atg caa 248
Leu Lys Lys Glu Lys Gln Val Asn Gln Arg Ile Glu Asn Met Met Gln
55 60 65
caa aaa gct caa atc acc agc caa cag cta aga aaa gca caa tta cag 296

Gln	Lys	Ala	Gln	Ile	Thr	Ser	Gln	Gln	Leu	Arg	Lys	Ala	Gln	Leu	Gln		
70					75				80					85			
ggt	gac	aga	ttt	gca	atg	gaa	tta	gaa	caa	agc	cga	aat	ttg	agc	aat	344	
Val	Asp	Arg	Phe	Ala	Met	Glu	Leu	Glu	Gln	Ser	Arg	Asn	Leu	Ser	Asn		
			90						95				100				
acc	ata	gtg	cac	att	gac	atg	gat	gct	ttc	tat	gca	gct	gta	gaa	atg	a	393
Thr	Ile	Val	His	Ile	Asp	Met	Asp	Ala	Phe	Tyr	Ala	Ala	Val	Glu	Met		
			105					110					115				

<210> 1993
 <211> 438
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 107..436

<400> 1993																
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gag	aggaagt	ctct	gaacag	gcgg	cagcgg	ctct	tatagt	gca	acc	atg	gca	gac				115
											Met	Ala	Asp			
											1					
tat	tca	aca	gtg	cct	ccc	ccc	tct	tct	ggc	tca	gct	ggt	ggc	ggt	ggt	163
Tyr	Ser	Thr	Val	Pro	Pro	Ser	Ser	Ser	Gly	Ser	Ala	Gly	Gly	Gly	Gly	
	5				10					15						
ggc	ggc	ggt	ggt	ggt	gga	gga	ggt	aac	gac	gct	ttc	aaa	gat	gca	ctg	211
Gly	Gly	Gly	Gly	Gly	Gly	Gly	Val	Asn	Asp	Ala	Phe	Lys	Asp	Ala	Leu	
	20			25				30						35		
cag	aga	gcc	cgg	cag	att	gca	gca	aaa	att	gga	ggt	gat	gca	ggg	aca	259
Gln	Arg	Ala	Arg	Gln	Ile	Ala	Ala	Lys	Ile	Gly	Gly	Asp	Ala	Gly	Thr	
			40			45							50			
tca	ctg	aat	tca	aat	gac	tat	ggt	tat	ggg	gga	caa	aaa	aga	cct	tta	307
Ser	Leu	Asn	Ser	Asn	Asp	Tyr	Gly	Tyr	Gly	Gly	Gln	Lys	Arg	Pro	Leu	
		55			60						65					
gaa	gat	gga	gat	caa	cca	gat	gct	aag	aaa	ggt	gct	cct	caa	aat	gac	355
Glu	Asp	Gly	Asp	Gln	Pro	Asp	Ala	Lys	Lys	Val	Ala	Pro	Gln	Asn	Asp	
	70				75				80							
tct	ttt	gga	aca	cag	tta	cca	ccg	atg	cat	cag	cag	caa	aga	tct	gta	403
Ser	Phe	Gly	Thr	Gln	Leu	Pro	Pro	Met	His	Gln	Gln	Gln	Arg	Ser	Val	
	85			90					95							
atg	aca	gaa	gaa	tac	aaa	ggt	cca	gat	gga	atg	gt					438
Met	Thr	Glu	Glu	Tyr	Lys	Val	Pro	Asp	Gly	Met						
	100			105					110							

<210> 1994
 <211> 286
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 72..284

<400> 1994

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gcggaatttcg ccggaatcc cggaagtgac agctttgggg gttkkctgct ggctctgact      60
cccgtcctgc g atg ggt tgc gac ggg gga aca atc ccc aag agg cat gaa      110
          Met Gly Cys Asp Gly Gly Thr Ile Pro Lys Arg His Glu
              1              5              10
ctg gtg aag ggg ccg aag aag gtt gag aag gtc gac aaa gat gct gaa      158
Leu Val Lys Gly Pro Lys Lys Val Glu Lys Val Asp Lys Asp Ala Glu
          15              20              25
tta gtg gcc caa tgg aac tat tgt act cta agt cag gaa ata tta aga      206
Leu Val Ala Gln Trp Asn Tyr Cys Thr Leu Ser Gln Glu Ile Leu Arg
          30              35              40              45
cga cca ata gtt gcc tgt gaa ctt ggc aga ctt tat aac aaa gat gcc      254
Arg Pro Ile Val Ala Cys Glu Leu Gly Arg Leu Tyr Asn Lys Asp Ala
              50              55              60
gtc att gaa ttt ctc ttg gac aaa tct gca ga      286
Val Ile Glu Phe Leu Leu Asp Lys Ser Ala
          65              70

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<210> 1995

<211> 345

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 27..344

<400> 1995

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agaactgtgg cgcttwctgg gtaaag atg gac gtc cac gat ctc ttt cgc cgg      53
          Met Asp Val His Asp Leu Phe Arg Arg
              1              5
ctc ggc scg ggg gcc aaa ttc gac acg aga cgc ttc tcg gca gac gca      101
Leu Gly Xaa Gly Ala Lys Phe Asp Thr Arg Arg Phe Ser Ala Asp Ala
          10              15              20              25
gct cga ttc cag ata gga aaa agg aaa tat gac ttt gat tct tcg gag      149
Ala Arg Phe Gln Ile Gly Lys Arg Lys Tyr Asp Phe Asp Ser Ser Glu
              30              35              40
gtg ckt cag gga ctg gac ttt ttt gga aac aag aag tct gtc cca ggt      197
Val Xaa Gln Gly Leu Asp Phe Phe Gly Asn Lys Lys Ser Val Pro Gly
          45              50              55
gtg tgt gga gca tca caa aca caw tca gaa gcc cca aaa gga gag aaa      245
Val Cys Gly Ala Ser Gln Thr Xaa Ser Glu Ala Pro Lys Gly Glu Lys
          60              65              70
aaa gaa gag agc cta act gna aag gaa gag gga gca gag caa gaa aaa      293
Lys Glu Glu Ser Leu Thr Xaa Lys Glu Glu Gly Ala Glu Gln Glu Lys
          75              80              85
aag gaa gac gat gac ttm aga aaa ttg ctt ccc aag aag aar gtg cta      341
Lys Glu Asp Asp Asp Xaa Arg Lys Leu Leu Pro Lys Lys Lys Val Leu
          90              95              100              105
cta t      345
Leu

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<210> 1996
 <211> 351
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 178..351

<400> 1996
 aacatgcgca ttgcgcccgc agccctggac catttgtcag gactactcgt gagacggaga 60
 aaaaaaaaaag agaaaatttg gggaaccctt aggagaaatc ttgagagtgg acagcaattg 120
 tgaagatcgc cagagagttc tgkgtttcat caccgccgaa aggttaaaaa ataatc 177
 atg act gaa tct gcc tct agc aca agt ggt caa gag ttt gat gtg ttc 225
 Met Thr Glu Ser Ala Ser Ser Thr Ser Gly Gln Glu Phe Asp Val Phe
 1 5 10 15
 agt gtt atg gac tgg aaa gat gga gtg ggc acg tta cca gga agt gac 273
 Ser Val Met Asp Trp Lys Asp Gly Val Gly Thr Leu Pro Gly Ser Asp
 20 25 30
 tta aag ttt cgg gta aat gar ttt gga gcc ctg gaa gtt att aca gat 321
 Leu Lys Phe Arg Val Asn Glu Phe Gly Ala Leu Glu Val Ile Thr Asp
 35 40 45
 gag aat gag atg gaa aat gtt aaa aaa gca 351
 Glu Asn Glu Met Glu Asn Val Lys Lys Ala
 50 55

<210> 1997
 <211> 420
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 142..420

<400> 1997
 agttgctttg aggcagtacc ggaggagaaa gatggcggct accttactag ctgctcgggg 60
 agccggggcca gcaccggctt gggggccgga ggggttcactc cagactggga aagccgagaa 120
 gtttccactg ggaccactat c atg gcc gtg cag ttt gac ggg ggc gtg gtt 171
 Met Ala Val Gln Phe Asp Gly Gly Val Val
 1 5 10
 ctg ggg gcg gac tcc aga aca acc act ggg tcc tac atc gcc aat cga 219
 Leu Gly Ala Asp Ser Arg Thr Thr Thr Gly Ser Tyr Ile Ala Asn Arg
 15 20 25
 gtg act gac aag ctg aca cct att cac gac cgc att ttc tgc tgt cgc 267
 Val Thr Asp Lys Leu Thr Pro Ile His Asp Arg Ile Phe Cys Cys Arg
 30 35 40
 tca ggc tca gct gct gat acc cag gca gta gct gat gct gtc acc tac 315
 Ser Gly Ser Ala Ala Asp Thr Gln Ala Val Ala Asp Ala Val Thr Tyr
 45 50 55
 cag ctc ggt ttc cac agc att gaa ctg aat gag cct cca ctg gtc cac 363

Gln Leu Gly Phe His Ser Ile Glu Leu Asn Glu Pro Pro Leu Val His
60 65 70
aca gca gcc agc ctc ttt aag gag atg tgt tac cga tac cgg gaa gac 411
Thr Ala Ala Ser Leu Phe Lys Glu Met Cys Tyr Arg Tyr Arg Glu Asp
75 80 85 90
ctg atg gcg 420
Leu Met Ala

<210> 1998
<211> 314
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 38..313

<400> 1998
accgcgtagg ccagctggcc ggatcccgcc gtctgtc atg gcg gcc ccc atc ctg 55
Met Ala Ala Pro Ile Leu
1 5
aaa gat gta gtg gcc tat gtt gaa gtg tgg tca tcc aat gga aca gaa 103
Lys Asp Val Val Ala Tyr Val Glu Val Trp Ser Ser Asn Gly Thr Glu
10 15 20
aat tat tca aag aca ttt aca aca cag ctt gtg gat atg ggg gca aag 151
Asn Tyr Ser Lys Thr Phe Thr Thr Gln Leu Val Asp Met Gly Ala Lys
25 30 35
gtt tca aaa act ttt aac aaa caa gta act cac gtt atc ttc aaa gat 199
Val Ser Lys Thr Phe Asn Lys Gln Val Thr His Val Ile Phe Lys Asp
40 45 50
ggc tac cag agc act tgg gac aaa gct cag aag aga ggc gta aag ctc 247
Gly Tyr Gln Ser Thr Trp Asp Lys Ala Gln Lys Arg Gly Val Lys Leu
55 60 65 70
gtt tcg gtg ctc tgg gtt gaa aaa tgc agg aca gct gga gca cac att 295
Val Ser Val Leu Trp Val Glu Lys Cys Arg Thr Ala Gly Ala His Ile
75 80 85
gat gaa tca ttg ttc cct g 314
Asp Glu Ser Leu Phe Pro
90

<210> 1999
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 175..471

<400> 1999
ttcttacttt cattccaagt cgctgctgtg cagagcagca agtgctccgt gcagggctgt 60
tgctatcact tggaggtgaa cagcctcttt tgccgggtatt cagtgaagaa agcaagtcta 120

aatatgcagct tctctcactg gagtgaaaga tgttttggtc atttctaacc aact atg	177
Met	
1	
cta gac agc tgc aag ctg aaa agt gcc tgc aat ttg cca ttt att tgt	225
Leu Asp Ser Cys Lys Leu Lys Ser Ala Cys Asn Leu Pro Phe Ile Cys	
5 10 15	
aat aag aaa ata ata aac act gct gga acc agt aat gca gaa gtc ccc	273
Asn Lys Lys Ile Ile Asn Thr Ala Gly Thr Ser Asn Ala Glu Val Pro	
20 25 30	
ttg gct gat ccc gga atg tac cag ctg gac att aca tta aga agg ggt	321
Leu Ala Asp Pro Gly Met Tyr Gln Leu Asp Ile Thr Leu Arg Arg Gly	
35 40 45	
caa agt tta gct gct cga gat cga gga ggg acg agt gat cca tat gtg	369
Gln Ser Leu Ala Ala Arg Asp Arg Gly Gly Thr Ser Asp Pro Tyr Val	
50 55 60 65	
aag ttt aaa atc gga gga aaa gaa gtt ttt aga agt aag ata ata cac	417
Lys Phe Lys Ile Gly Gly Lys Glu Val Phe Arg Ser Lys Ile Ile His	
70 75 80	
aag aac ctc aac cct gtg tgg gaa gaa aaa gct tgt att ctg gtt gat	465
Lys Asn Leu Asn Pro Val Trp Glu Glu Lys Ala Cys Ile Leu Val Asp	
85 90 95	
cat ctt	471
His Leu	
<210> 2000	
<211> 392	
<212> DNA	
<213> Homo sapiens	
<220>	
<221> CDS	
<222> 102..392	
<400> 2000	
taaggcgggtc ccgggggagtg gaggagaaaag ggggggtctt ggccggccgga ggaggagtag	60
gtgcgggtga agatggcggc agcgaggccg cgaactgcat c atg gag gtg tcc tgt	116
Met Glu Val Ser Cys	
1 5	
ggc cag gcg gaa agc agt gag aag ccc aac gct gag gac atg aca tcc	164
Gly Gln Ala Glu Ser Ser Glu Lys Pro Asn Ala Glu Asp Met Thr Ser	
10 15 20	
aaa gat tac tac ttt gac tcc tac gca cac ttt ggc atc cac gag gag	212
Lys Asp Tyr Tyr Phe Asp Ser Tyr Ala His Phe Gly Ile His Glu Glu	
25 30 35	
atg ctg aag gac gag gtg cgc acc ctc act tac cgc aac tcc atg ttt	260
Met Leu Lys Asp Glu Val Arg Thr Leu Thr Tyr Arg Asn Ser Met Phe	
40 45 50	
cat aac cgg cac ctc ttc aag gac aag gtg gtg ctg gac gtc ggc tcg	308
His Asn Arg His Leu Phe Lys Asp Lys Val Val Leu Asp Val Gly Ser	
55 60 65	
ggc acc ggc atc ctc tgc atg ttt gct gcc aag gcc ggg gcc cgc aag	356
Gly Thr Gly Ile Leu Cys Met Phe Ala Ala Lys Ala Gly Ala Arg Lys	
70 75 80 85	

gtc atc ggg atc gag tgt tcc agt atc tct gat tat
Val Ile Gly Ile Glu Cys Ser Ser Ile Ser Asp Tyr
90 95

392

<210> 2001
<211> 436
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 11..436

<400> 2001
gtgggaaaag atg gcg gct gcc gca caa tcc cgg gtt gtc cgg gtc ctg 49
Met Ala Ala Ala Ala Gln Ser Arg Val Val Arg Val Leu
1 5 10
tca atg tca cgt tct gcc att act gca ata gcc aca tct gtg tgt cac 97
Ser Met Ser Arg Ser Ala Ile Thr Ala Ile Ala Thr Ser Val Cys His
15 20 25
ggc cca ccc tgt cgc cag ctt cat cat gcc ctc atg cct cat ggg aaa 145
Gly Pro Pro Cys Arg Gln Leu His His Ala Leu Met Pro His Gly Lys
30 35 40 45
ggt gga cgt tcc tca gtc agt ggg att gtg gcc act gtg ttt gga gca 193
Gly Gly Arg Ser Ser Val Ser Gly Ile Val Ala Thr Val Phe Gly Ala
50 55 60
aca gga ttc ctg ggg cga tat gtt gtc aac cac ctt gga cgc atg ggg 241
Thr Gly Phe Leu Gly Arg Tyr Val Val Asn His Leu Gly Arg Met Gly
65 70 75
tca cag gta atc ata ccc tat cgg tgt gat aaa tat gac atc atg cac 289
Ser Gln Val Ile Ile Pro Tyr Arg Cys Asp Lys Tyr Asp Ile Met His
80 85 90
ctt cgt ccc atg ggt gac ctg ggc cag ctt ctg ttt ctg gaa tgg gac 337
Leu Arg Pro Met Gly Asp Leu Gly Gln Leu Leu Phe Leu Glu Trp Asp
95 100 105
gcg aga gat aaa gat tct atc cga cga gta gta caa cac agc aat gtg 385
Ala Arg Asp Lys Asp Ser Ile Arg Arg Val Val Gln His Ser Asn Val
110 115 120 125
gtc atc aat ctt att gga cga gac tgg gaa acc aaa aac ttt gat ttt 433
Val Ile Asn Leu Ile Gly Arg Asp Trp Glu Thr Lys Asn Phe Asp Phe
130 135 140
gag 436
Glu

<210> 2002
<211> 187
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 20..187

<400> 2002

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aagcctcaga ttgattaca atg ttc ttt cta ctt cat ttc atc gtt ctg atc      52
                Met Phe Phe Leu Leu His Phe Ile Val Leu Ile
                  1             5             10
aat gtc aaa gat ttt gca ctg act caa ggt agc atg atc act cct tca      100
Asn Val Lys Asp Phe Ala Leu Thr Gln Gly Ser Met Ile Thr Pro Ser
                15             20             25
tgc caa aaa gga tat ttc cct gtg gka atc tta cca agt gct tac ccc      148
Cys Gln Lys Gly Tyr Phe Pro Val Xaa Ile Leu Pro Ser Ala Tyr Pro
                30             35             40
gag ctt ttc act gtg atg gca agg atg act gtg gga acg      187
Glu Leu Phe Thr Val Met Ala Arg Met Thr Val Gly Thr
                45             50             55

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<210> 2003

<211> 398

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 104..397

<400> 2003

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attaaagcaa gatggcgcgc ccctgcagat tgtctcttgt tgcgtaagtt tttttgaccg      60
tcactcgtgt cagcttcaaa gtcagataga tttttctccc agc atg ttc tac ttc      115
                Met Phe Tyr Phe
                  1
cga ggc tgt ggc cgt tgg gtc gcg gtt tcc ttc acc aag cag caa ttt      163
Arg Gly Cys Gly Arg Trp Val Ala Val Ser Phe Thr Lys Gln Gln Phe
                5             10             15             20
ccg ttg gca cgg ttg agc agt gac agc gcg gcg ccc cgg act ccg cac      211
Pro Leu Ala Arg Leu Ser Ser Asp Ser Ala Ala Pro Arg Thr Pro His
                25             30             35
ttc gac gtg ata gts att ggt gga gga cat gcc ggg act gag gca gcy      259
Phe Asp Val Ile Val Ile Gly Gly Gly His Ala Gly Thr Glu Ala Ala
                40             45             50
acc gcc gcc gct cgg tgc ggc tct cgg act ctg ctc ctc act cac cgc      307
Thr Ala Ala Ala Arg Cys Gly Ser Arg Thr Leu Leu Thr His Arg
                55             60             65
gtg gac acg atc ggt cag atg tca tgt aat cct tcc ttt ggt ggc atc      355
Val Asp Thr Ile Gly Gln Met Ser Cys Asn Pro Ser Phe Gly Gly Ile
                70             75             80
gga aag gga cat tta atg agg gaa gta gat gcc ttg gat ggc c      398
Gly Lys Gly His Leu Met Arg Glu Val Asp Ala Leu Asp Gly
                85             90             95

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<210> 2004

<211> 223

<212> DNA

<213> Homo sapiens

SECRET

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<210> 2005
<211> 307
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 25..306
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1328

<210> 2006
 <211> 309
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 112..309

<400> 2006
 ccctacttcc tgtgstcttg cggagacgcg cgcgtcgggg ttttaacgcgt ttctgggccg 60
 ccgtaagccc ggcctagggg cagctttgac tcgagagccg gctataggcg c atg gaa 117
 Met Glu
 1
 ggt tcc ctg gaa cgg gag gcg cca gcg ggg gcg ctg gcc gcc gtg cta 165
 Gly Ser Leu Glu Arg Glu Ala Pro Ala Gly Ala Leu Ala Ala Val Leu
 5 10 15
 aag cac agc tcg acg ttg ccg ccc gaa agc acc cag gtc cgg ggc tac 213
 Lys His Ser Ser Thr Leu Pro Pro Glu Ser Thr Gln Val Arg Gly Tyr
 20 25 30
 gac ttc aac cgc ggt gtg aat tac cgc gca ctg ctg gag gcc ttc ggc 261
 Asp Phe Asn Arg Gly Val Asn Tyr Arg Ala Leu Leu Glu Ala Phe Gly
 35 40 45 50
 acc acc ggc ttc caa gca acc aac ttc ggg cgc gct gta cag caa gtc 309
 Thr Thr Gly Phe Gln Ala Thr Asn Phe Gly Arg Ala Val Gln Gln Val
 55 60 65

<210> 2007
 <211> 423
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 62..421

<400> 2007
 aagttcctct tcttaccctg cacccagagc ctgcgccagag aagacaaggg cagaaagcac 60
 c atg agt ggg ggc cca atg gga gga agg ccc ggg ggc cga gga gca cca 109
 Met Ser Gly Gly Pro Met Gly Gly Arg Pro Gly Gly Arg Gly Ala Pro
 1 5 10 15
 gcg gtt cag cag aac ata ccc tcc acc ctc ctc cag gac cac gag aac 157
 Ala Val Gln Gln Asn Ile Pro Ser Thr Leu Leu Gln Asp His Glu Asn
 20 25 30
 cag cga ctc ttt gag atg ctt gga cga aaa tgc ttg acs ctg gcc act 205
 Gln Arg Leu Phe Glu Met Leu Gly Arg Lys Cys Leu Thr Leu Ala Thr
 35 40 45
 gca gtt gtt cag ctg tac ctg gcg ctg ccc cct gga gct gag cac tgg 253
 Ala Val Val Gln Leu Tyr Leu Ala Leu Pro Pro Gly Ala Glu His Trp
 50 55 60
 acc aag gag cat tgt ggg gct gtg tgc ttc gtg aag gat aac ccc cag 301

Thr	Lys	Glu	His	Cys	Gly	Ala	Val	Cys	Phe	Val	Lys	Asp	Asn	Pro	Gln		
65					70				75						80		
aag	tcc	tac	ttc	atc	cgc	ctt	tac	ggc	ctt	cag	gct	ggt	cgg	ctg	ctc		349
Lys	Ser	Tyr	Phe	Ile	Arg	Leu	Tyr	Gly	Leu	Gln	Ala	Gly	Arg	Leu	Leu		
			85					90						95			
tgg	gaa	cag	gag	ctg	tac	tca	cag	ctt	gtc	tac	tcc	amc	ccc	acc	ccc		397
Trp	Glu	Gln	Glu	Leu	Tyr	Ser	Gln	Leu	Val	Tyr	Ser	Xaa	Pro	Thr	Pro		
			100					105					110				
ttc	ttc	cca	cac	ctt	cgc	tgg	aga	tg									423
Phe	Phe	Pro	His	Leu	Arg	Trp	Arg										
			115				120										

<210> 2008

<211> 397

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 95..397

<400> 2008

attgctg	gcga	gcaggag	cag	gagacgc	gga	stcggag	cg	tgagctg	acc	tgccggag	cc						60
gggcgtg	gggc	tcgagc	ctcg	gagctccc	g	aacg	atg	gtg	aag	ttg	ggg	aac	rat				115
							Met	Val	Lys	Leu	Gly	Asn	Xaa				
							1				5						
ttc	gca	gag	aag	ggc	acc	aag	cag	ycg	ctg	ctg	gag	gat	ggc	ttc	gac		163
Phe	Ala	Glu	Lys	Gly	Thr	Lys	Gln	Xaa	Leu	Leu	Glu	Asp	Gly	Phe	Asp		
			10				15				20						
acc	att	ccc	ctg	atg	acg	ccc	ctc	gat	gtc	aat	cag	ctg	cag	ttc	ccg		211
Thr	Ile	Pro	Leu	Met	Thr	Pro	Leu	Asp	Val	Asn	Gln	Leu	Gln	Phe	Pro		
			25				30				35						
ccc	ccg	gat	aag	gtg	gtc	gtg	aaa	act	aag	acc	gag	wat	gaa	cct	gac		259
Pro	Pro	Asp	Lys	Val	Val	Val	Lys	Thr	Lys	Thr	Glu	Xaa	Glu	Pro	Asp		
			40			45				50				55			
cgc	aag	aaa	ggg	aaa	gca	cgt	cct	ccc	caa	att	gct	gag	ttc	acc	gtc		307
Arg	Lys	Lys	Gly	Lys	Ala	Arg	Pro	Pro	Gln	Ile	Ala	Glu	Phe	Thr	Val		
			60				65						70				
agc	atc	acg	gag	gkt	gtc	acc	gag	agg	ttt	aag	gtc	tcc	gtg	ttg	gtc		355
Ser	Ile	Thr	Glu	Xaa	Val	Thr	Glu	Arg	Phe	Lys	Val	Ser	Val	Leu	Val		
			75				80						85				
ctc	ttc	gcc	ctg	gcc	ttc	ctc	acc	tgc	gtc	gtc	ttc	ctg	gct				397
Leu	Phe	Ala	Leu	Ala	Phe	Leu	Thr	Cys	Val	Val	Phe	Leu	Ala				
			90				95					100					

<210> 2009

<211> 391

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 38..391

<400> 2009

gacgtcatcc cgcagcgccg gaagcgggtga ggcacag atg agt aac gtg aat ttg 55
 Met Ser Asn Val Asn Leu
 1 5
 tcc gtc tcc gac ttc tgg aga gtg atg atg cgg gtg tgc tgg ttg gtg 103
 Ser Val Ser Asp Phe Trp Arg Val Met Met Arg Val Cys Trp Leu Val
 10 15 20
 aga cag gac agc cgg cac cag cga atc aga ctt cca cat ttg gaa gca 151
 Arg Gln Asp Ser Arg His Gln Arg Ile Arg Leu Pro His Leu Glu Ala
 25 30 35
 gtt gtg att ggg cgt ggc cca gag acc aag atc act gat aag aaa tgt 199
 Val Val Ile Gly Arg Gly Pro Glu Thr Lys Ile Thr Asp Lys Lys Cys
 40 45 50
 tct cga cag caa gta cag ttg aaa gca gag tgt aac aag gga tat gtc 247
 Ser Arg Gln Gln Val Gln Leu Lys Ala Glu Cys Asn Lys Gly Tyr Val
 55 60 65 70
 aag gta aag cag gta gga gtc aat snc acc agc att gac tca gtc gta 295
 Lys Val Lys Gln Val Gly Val Asn Xaa Thr Ser Ile Asp Ser Val Val
 75 80 85
 att ggg aag gac caa gag gtg aag ctg cag cct ggc cag gtt ctc cac 343
 Ile Gly Lys Asp Gln Glu Val Lys Leu Gln Pro Gly Gln Val Leu His
 90 95 100
 atg gtg aat gaa ctt tat cca tat att gta gag ttt gag gaa gag gca 391
 Met Val Asn Glu Leu Tyr Pro Tyr Ile Val Glu Phe Glu Glu Glu Ala
 105 110 115

<210> 2010

<211> 350

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 69..350

<400> 2010

gaaatcgtag gacttccgaa agcagcggcg gcgtttgctt cactgcttgg aagtgtgagt 60
 gcgcgaag atg cga aag gtg gtt ttg att acc ggg gct agc agt ggc att 110
 Met Arg Lys Val Val Leu Ile Thr Gly Ala Ser Ser Gly Ile
 1 5 10
 ggc ctg gcc ctc tgc aag cgg ctg ctg gcg gaa gat gat gag ctt cat 158
 Gly Leu Ala Leu Cys Lys Arg Leu Leu Ala Glu Asp Asp Glu Leu His
 15 20 25 30
 ctg tgt ttg gcg tgc agg aat atg agc aag gca gaa gct gtc tgt gct 206
 Leu Cys Leu Ala Cys Arg Asn Met Ser Lys Ala Glu Ala Val Cys Ala
 35 40 45
 gct ctg ctg gcc tct cac ccc act gct gag gtc acc att gtc cag gtg 254
 Ala Leu Leu Ala Ser His Pro Thr Ala Glu Val Thr Ile Val Gln Val
 50 55 60
 gat gtc agc aas ctg cag tna ttc ttc cgg gcc tcc aag gaa ctt aag 302
 Asp Val Ser Xaa Leu Gln Xaa Phe Phe Arg Ala Ser Lys Glu Leu Lys

65	70	75	
caa agg atg atc aag aaa tgg ttg tat gtg atc cgt gtt gaa gac cat			350
Gln Arg Met Ile Lys Lys Trp Leu Tyr Val Ile Arg Val Glu Asp His			
80	85	90	

<210> 2011
 <211> 405
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 74..403

<400> 2011	
agttgtactt ttagcttccc ccatacctgca aggccactca accatgtgct agctggagtg	60
atctttattc aca atg tct tta caa agg ctc ctg caa cac agc agc aat	109
Met Ser Leu Gln Arg Leu Leu Gln His Ser Ser Asn	
1 5 10	
ggc aat ttg gcg gac ttc tgc gct ggg cca gcg tat agc tct tac tcc	157
Gly Asn Leu Ala Asp Phe Cys Ala Gly Pro Ala Tyr Ser Ser Tyr Ser	
15 20 25	
aca ctc acc ggc agc ctt acg atg gac gat aat aga agg att caa atg	205
Thr Leu Thr Gly Ser Leu Thr Met Asp Asp Asn Arg Arg Ile Gln Met	
30 35 40	
cta gca gac acg gtg gct act ctg cct cgg gga cga aag cag ctt gct	253
Leu Ala Asp Thr Val Ala Thr Leu Pro Arg Gly Arg Lys Gln Leu Ala	
45 50 55 60	
ttg acc aga tca agt tct tta agt gac ttt tcc tgg tct caa aga aag	301
Leu Thr Arg Ser Ser Ser Leu Ser Asp Phe Ser Trp Ser Gln Arg Lys	
65 70 75	
ctt gtt act gtg gag aag cag gat aat gaa aca ttt gga ttt gaa att	349
Leu Val Thr Val Glu Lys Gln Asp Asn Glu Thr Phe Gly Phe Glu Ile	
80 85 90	
cag tct tac agg ccc cag aat cag aat gcc tgc tcc tcg gaa atg ttc	397
Gln Ser Tyr Arg Pro Gln Asn Gln Asn Ala Cys Ser Ser Glu Met Phe	
95 100 105	
act ttg at	405
Thr Leu	
110	

<210> 2012
 <211> 436
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 83..436

<400> 2012	
agacaagtgg ccgtaatctg actcccagca cacagggagc tgcggggcag gcaatgagag	60

004220.6667560


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ctgcactctg gctggggaag gc atg agt gac aga ccc aca gca agg cgg tgg      112
                               Met Ser Asp Arg Pro Thr Ala Arg Arg Trp
                               1           5           10
ggt aag tgt gga cct ttg tgt acc aga gag aac atc atg gtg gct ttc      160
Gly Lys Cys Gly Pro Leu Cys Thr Arg Glu Asn Ile Met Val Ala Phe
                               15           20           25
aaa ggg gtc tgg act caa gct ttc tgg aaa gca gtc aca gcg gaa ttt      208
Lys Gly Val Trp Thr Gln Ala Phe Trp Lys Ala Val Thr Ala Glu Phe
                               30           35           40
ctg gcc atg ctt att ttt gtt ctc ctc agc ctg gga tcc acc ats rac      256
Leu Ala Met Leu Ile Phe Val Leu Ser Leu Gly Ser Thr Xaa Xaa
                               45           50           55
tgg ggt gga aca gaa aag cct tta ccg gtc gac atg gtt ctc atc tcc      304
Trp Gly Gly Thr Glu Lys Pro Leu Pro Val Asp Met Val Leu Ile Ser
                               60           65           70
ckt tgc ttt gga ctc agc att gca acc atg gtg cag tgc ttt ggc cat      352
Xaa Cys Phe Gly Leu Ser Ile Ala Thr Met Val Gln Cys Phe Gly His
                               75           80           85           90
atc agc ggt ggc cac atc aac cct gca gtg act gtg gcc atg gtg tgc      400
Ile Ser Gly Gly His Ile Asn Pro Ala Val Thr Val Ala Met Val Cys
                               95           100           105
acc agg rag atc agc atc gcc aag tct gtc ttc tac      436
Thr Arg Xaa Ile Ser Ile Ala Lys Ser Val Phe Tyr
                               110           115

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<210> 2013
 <211> 279
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 121..279

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<400> 2013
gaagatggcg gcgcacaagt caggtccggc acatgtttcc gcggagrasc ccagcaatga      60
cggatgatat cactcttct tctctggtga gagtctgagg atagagactt ttttctcacc      120
atg aat gtc acc cca gag gtc aag agt cgt ggg atg aag ttt gct gag      168
Met Asn Val Thr Pro Glu Val Lys Ser Arg Gly Met Lys Phe Ala Glu
1           5           10           15
gag cag ctg cta aag cat gga tgg act caa ggc aaa ggc ctc ggc cgg      216
Glu Gln Leu Leu Lys His Gly Trp Thr Gln Gly Lys Gly Leu Gly Arg
20           25           30
aag gag aat ggt atc act cag gct ctc agg gtg aca ctg aag caa gac      264
Lys Glu Asn Gly Ile Thr Gln Ala Leu Arg Val Thr Leu Lys Gln Asp
35           40           45
act cat ggg gta gga      279
Thr His Gly Val Gly
50

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<210> 2014
 <211> 479
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 101..478

<400> 2014

cccttttttg cagtctcagg acgggcgctt tggagccggc cccaggcagc gtgtgtcgkt 60
cgcctagkct ggagaactag tcctcgactc acgtgcaagg atg atg ctg aaa gga 115
Met Met Leu Lys Gly
1 5
ata aca agg ctw atc tct agg atc cat aag ttg gac cct ggg cgt ttt 163
Ile Thr Arg Leu Ile Ser Arg Ile His Lys Leu Asp Pro Gly Arg Phe
10 15 20
tta cac atg ggg acc cag gct cgc caa agc att gct gct cac cta gat 211
Leu His Met Gly Thr Gln Ala Arg Gln Ser Ile Ala Ala His Leu Asp
25 30 35
aac cag gtt cca gtt gag agt ccg aga gct att tcc cgc acc aat gag 259
Asn Gln Val Pro Val Glu Ser Pro Arg Ala Ile Ser Arg Thr Asn Glu
40 45 50
aat gac ccg gcc aag cat ggg gat cag cac gag ggt cag cac tac aac 307
Asn Asp Pro Ala Lys His Gly Asp Gln His Glu Gly Gln His Tyr Asn
55 60 65
atc tcc ccc cag gat ttg gag act gta ttt ccc cat ggc ctt cct cct 355
Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro His Gly Leu Pro Pro
70 75 80 85
cgc ttt gtg atg cag gtg aag aca ttc agt gaa gct tgc ctg atg gta 403
Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu Ala Cys Leu Met Val
90 95 100
agg aaa cca gcc cta gaa ctt ctg cat tac ctg aaa aac acc agt ttt 451
Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu Lys Asn Thr Ser Phe
105 110 115
gct tat cca gct ata cga tat ctt ctg t 479
Ala Tyr Pro Ala Ile Arg Tyr Leu Leu
120 125

<210> 2015

<211> 387

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 116..385

<400> 2015

gacgactttc ggcgccgtgg cggaatggcg gcttccatct ctgaggcgag cgacgctatg 60
gatcccacag tggtttgcta agaaggccat tttcaactct ccactggagg ctgct atg 118
Met
1
gcg ttc cct cac ctg cag cag ccc agc ttt cta ctg gct agc ctg aaa 166
Ala Phe Pro His Leu Gln Gln Pro Ser Phe Leu Leu Ala Ser Leu Lys

004220" 666ET560

	5		10		15	
gct gac tct ata aat aag ccc ttt gca cag cag tgc caa gac ttg gtt						214
Ala Asp Ser Ile Asn Lys Pro Phe Ala Gln Gln Cys Gln Asp Leu Val						
	20		25		30	
aaa gtc att gag gac ttt cca gca aag gag ctg cac acc atc ttc cca						262
Lys Val Ile Glu Asp Phe Pro Ala Lys Glu Leu His Thr Ile Phe Pro						
	35		40		45	
tgg ctg gta gaa agc att ttt ggc agc cta gat ggt gtc ctc gtt ggc						310
Trp Leu Val Glu Ser Ile Phe Gly Ser Leu Asp Gly Val Leu Val Gly						
	50		55		60	
tgg aac ctc cgc tgc tta cag ggg cgc gtg aat cct gtg gag tac agc						358
Trp Asn Leu Arg Cys Leu Gln Gly Arg Val Asn Pro Val Glu Tyr Ser						
	70		75		80	
atc gtg atg gaa ttt ctc gac cct ggt gg						387
Ile Val Met Glu Phe Leu Asp Pro Gly						
	85		90			

<210> 2016
 <211> 233
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 40..231

<400> 2016	
gatcgcgtcg ggcagcgggc gcggcggccc cgcgcagcc atg gac tgg ctc atg	54
	Met Asp Trp Leu Met
	1 5
ggg aag tcc aaa gcc aag ccc aat ggc aag aag ccc gct gcg gag gag	102
Gly Lys Ser Lys Ala Lys Pro Asn Gly Lys Lys Pro Ala Ala Glu Glu	
	10 15 20
agg aag gcc tac ctg gag cct gag cac acc aag gcc agg atc acc gac	150
Arg Lys Ala Tyr Leu Glu Pro Glu His Thr Lys Ala Arg Ile Thr Asp	
	25 30 35
ttc cag ttc aag gag ctg gtg gtg ctg ccc cgc gag att gac ctt aac	198
Phe Gln Phe Lys Glu Leu Val Val Leu Pro Arg Glu Ile Asp Leu Asn	
	40 45 50
gag tgg ctg gcc agc aac aac gac gtt ttt cca cc	233
Glu Trp Leu Ala Ser Asn Asn Asp Val Phe Pro	
	55 60

<210> 2017
 <211> 199
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 24..197

<400> 2017

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gggctggggc acgtcaccgc cga atg gca gcc tcc aga aag cca ccg cga gta      53
                        Met Ala Ala Ser Arg Lys Pro Pro Arg Val
                        1           5           10
agg gtg aat cac cag gat ttt caa ctg aga aat tta aga ata att gaa      101
Arg Val Asn His Gln Asp Phe Gln Leu Arg Asn Leu Arg Ile Ile Glu
                        15           20           25
cct aac gag gtg aca cac tca gga gac aca ggt gtg gaa aca gac ggc      149
Pro Asn Glu Val Thr His Ser Gly Asp Thr Gly Val Glu Thr Asp Gly
                        30           35           40
aga atg cct cca aag gtg act tca gag ctg ctt cgg cag ctg aga caa      197
Arg Met Pro Pro Lys Val Thr Ser Glu Leu Leu Arg Gln Leu Arg Gln
                        45           50           55
gc                                                                    199

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<210> 2018

<211> 402

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 232..402

<400> 2018

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gggtctagagc tgagtggagc ccggctgcgg atctgggaag cgcctcttca cggcactggg      60
atccgcacatc gcctgggatc atcaagccct agaagctggg tttctttaaa ttagggctgc      120
cgttttctgt ttctccctgg gctgcggaaa gccagaagat tttatctagc ttatacaagg      180
ctgctgggtgt tccctctttt tttccacgag ggtgtttttg gctgcaattg c atg aaa      237
                        Met Lys
                        1
tcc caa tgg tgt aga cca gtg gcg atg gat cta gga gtt tac caa ctr      285
Ser Gln Trp Cys Arg Pro Val Ala Met Asp Leu Gly Val Tyr Gln Leu
                        5           10           15
rga cat ttt tca rnt tct ttc ttg tca tcc ttg ctg ggg act gaa aac      333
Xaa His Phe Ser Xaa Ser Phe Leu Ser Ser Leu Leu Gly Thr Glu Asn
                        20           25           30
gct tct gtg aga ctt gat aat agc tcc tct ggt gca agt gtg gta gct      381
Ala Ser Val Arg Leu Asp Asn Ser Ser Ser Gly Ala Ser Val Val Ala
                        35           40           45           50
att grc aac aaa atc gag caa      402
Ile Xaa Asn Lys Ile Glu Gln
                        55

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<210> 2019

<211> 653

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 273..653

<400> 2019

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atgcccccg cccgcaggtc ttttagtctt tttccccctc ccttactctt cgtccccggt      60
ccctccccct cccacccctt tccttctagc tccgacgttt gcggccgcgg gggcggmgga      120
ggatatggag taaagccaga gtcagtggcc aggcacgaag gcagagcagg aacagccagg      180
aggcgtttat taggggggcg ggggggaaaga gccccagcac cgccccctct ggaagaagga      240
agaggtaact ataactaccc aatattgcag cc atg gag tcc atg ctt aat aaa      293
                               Met Glu Ser Met Leu Asn Lys
                               1           5

ttg aag agt act gtt aca aaa gta aca gct gat gtc act agt gct gta      341
Leu Lys Ser Thr Val Thr Lys Val Thr Ala Asp Val Thr Ser Ala Val
           10           15           20

atg gga aat cct gtc act aga gaa ttt gat gtt ggt cga cac att gcc      389
Met Gly Asn Pro Val Thr Arg Glu Phe Asp Val Gly Arg His Ile Ala
           25           30           35

agt ggt ggc aat ggg cta gct tgg aag att ttt aat ggc aca aaa aag      437
Ser Gly Gly Asn Gly Leu Ala Trp Lys Ile Phe Asn Gly Thr Lys Lys
           40           45           50           55

tca aca aag cag gaa gtg gca gtw ttt gtc ttt gat aaa aaa ctg att      485
Ser Thr Lys Gln Glu Val Ala Val Phe Val Phe Asp Lys Lys Leu Ile
           60           65           70

gac arg tat caa aaa ttt gaa aag gat caa atc att gat tct cta aaa      533
Asp Xaa Tyr Gln Lys Phe Glu Lys Asp Gln Ile Ile Asp Ser Leu Lys
           75           80           85

cga gga gtc caa cag tta act cgg ctt cga cac cct cga ctt ctt act      581
Arg Gly Val Gln Gln Leu Thr Arg Leu Arg His Pro Arg Leu Leu Thr
           90           95           100

gtc cag cat cct tta gaa gaa tcc agg gat tgc ttg gca ttt tgt aca      629
Val Gln His Pro Leu Glu Glu Ser Arg Asp Cys Leu Ala Phe Cys Thr
           105           110           115

gaa cca gtw ttt gcc agt ata gcc      653
Glu Pro Val Phe Ala Ser Ile Ala
120           125

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<210> 2020

<211> 469

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 291..467

<400> 2020

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tttcttaccg ggtctgagta cgacaggggc gtgaatactt tttctcccga agaagattat      180
ttcaagtgga atatgccatt gaggctatca agcttggttc tacagccatt gggatccaga      240
catcagaggg tgtgtgccta gctgtggaga agagaattac ttccccactg atg gag      296
                               Met Glu
                               1

ccc agc agc att gag aaa att gta gag att gat gct cac ata ggt tgt      344
Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His Ile Gly Cys

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5	10	15	
gcc atg agt ggg cta att gct gat gct aag act tta att gat aaa gcc			392
Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile Asp Lys Ala			
20	25	30	
aga gtg gag aca cag aac cac tgg ttc acc tac aat gag aca atn nnn			440
Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu Thr Xaa Xaa			
35	40	45	50
gtg gag agt gtg acc aag ctg tgt cca at			469
Val Glu Ser Val Thr Lys Leu Cys Pro			
55			

<210> 2021
 <211> 348
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 66..347

<400> 2021	
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acgca atg gca gcc ttt gca gtg gaa cct cag ggg ccc gcg tta gga tct	110
Met Ala Ala Phe Ala Val Glu Pro Gln Gly Pro Ala Leu Gly Ser	
1	5
gaa cca atg atg ctg ggt tca ccc aca tct cca aag cca gga gtt aat	158
Glu Pro Met Met Leu Gly Ser Pro Thr Ser Pro Lys Pro Gly Val Asn	
20	25
gcc cag ttc tta cct gga ttt tta atg ggg gat ttg cca gct ccg gtg	206
Ala Gln Phe Leu Pro Gly Phe Leu Met Gly Asp Leu Pro Ala Pro Val	
35	40
act cca caa cct cga tca att agt ggc cct tca gta gga gta atg gaa	254
Thr Pro Gln Pro Arg Ser Ile Ser Gly Pro Ser Val Gly Val Met Glu	
50	55
atg aga tca cct tta ctt gca ggt ggg tca cca cca caa cca gtt gta	302
Met Arg Ser Pro Leu Leu Ala Gly Gly Ser Pro Pro Gln Pro Val Val	
65	70
cca gct cat aaa gat aaa agt ggc gct cca cca gtt aga agt ata t	348
Pro Ala His Lys Asp Lys Ser Gly Ala Pro Pro Val Arg Ser Ile	
80	85

<210> 2022
 <211> 406
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 148..405

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gctcactcca acctctgctt cccagggttca agcgattctt ctgcctcagc ctccggatac 120
 ctgggattac agcttcacgg tgatgat atg gsa tct gcm agc tct agc sgg gca 174
 Met Xaa Ser Ala Ser Ser Ser Xaa Ala

1 5
 gga gtg gcc ctg cct ttt gag aag tct cag ctc act ttg aaa gtg gtg 222
 Gly Val Ala Leu Pro Phe Glu Lys Ser Gln Leu Thr Leu Lys Val Val
 10 15 20 25
 tcc gca aag ccc aag gtg cat aat cgt caa cct cga att aac tcc tac 270
 Ser Ala Lys Pro Lys Val His Asn Arg Gln Pro Arg Ile Asn Ser Tyr
 30 35 40
 gtg gag gtg gcg gtg gat gga ctc ccc agt gag acc aag aag act ggg 318
 Val Glu Val Ala Val Asp Gly Leu Pro Ser Glu Thr Lys Lys Thr Gly
 45 50 55
 aag cgc att ggg agc tct gag ctt ctc tgg aat gag atc atc att ttg 366
 Lys Arg Ile Gly Ser Ser Glu Leu Leu Trp Asn Glu Ile Ile Ile Leu
 60 65 70
 aat gtc acg gca cag agt cat tta gat tta aag gtc tgg a 406
 Asn Val Thr Ala Gln Ser His Leu Asp Leu Lys Val Trp
 75 80 85

<210> 2023
 <211> 435
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 190..435

<400> 2023
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 tgacatcctt ccccttccac cctgctccct gctctacatc cccagcaggg agtggcctct 180
 cccttctcc atg gac ttc caa gag agg gac ccg ccc ttc ctg cct gag agc 231
 Met Asp Phe Gln Glu Arg Asp Pro Pro Phe Leu Pro Glu Ser
 1 5 10
 gct cag tcc tca aag ccc agc agt gct cag cag gcc tct gag ctg tgg 279
 Ala Gln Ser Ser Lys Pro Ser Ser Ala Gln Gln Ala Ser Glu Leu Trp
 15 20 25 30
 gag gtg gtg gag gag cct cgg gtc agg ctg ggg aca gag ggt gtc atg 327
 Glu Val Val Glu Glu Pro Arg Val Arg Leu Gly Thr Glu Gly Val Met
 35 40 45
 cct gag agg cag gaa ggt cac ctg ctc aag aag agg aag tgg cct ctg 375
 Pro Glu Arg Gln Glu Gly His Leu Leu Lys Lys Arg Lys Trp Pro Leu
 50 55 60
 aag ggc tgg cac aag aga tac ttt gtg ctc gag gac ggg atc ctt cat 423
 Lys Gly Trp His Lys Arg Tyr Phe Val Leu Glu Asp Gly Ile Leu His
 65 70 75
 tat gca aca acc 435
 Tyr Ala Thr Thr
 80

<210> 2024

<211> 392
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 115..390

<400> 2024
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 cggastgaga gcaatgaggc caattcgaag tggttggatg cgcactacga ccca atg 117
 Met
 1
 gcc aat atc cac acc ttt tct gcc tgc cta gcg ctg gca gat tta cat 165
 Ala Asn Ile His Thr Phe Ser Ala Cys Leu Ala Leu Ala Asp Leu His
 5 10 15
 ggg gat ggg gaa tac aag ctg gtg gta ggg gac ctt ggc cct ggt ggg 213
 Gly Asp Gly Glu Tyr Lys Leu Val Val Gly Asp Leu Gly Pro Gly Gly
 20 25 30
 cag cag ccc cgc ctg aag gtg ctc aaa gga cca ctg gtg atg acc gaa 261
 Gln Gln Pro Arg Leu Lys Val Leu Lys Gly Pro Leu Val Met Thr Glu
 35 40 45
 agc ccg cta cct gct ctg cca gct gct gct gcc acc ttc ctc atg gag 309
 Ser Pro Leu Pro Ala Leu Pro Ala Ala Ala Thr Phe Leu Met Glu
 50 55 60 65
 caa cat gag ccc cgg anc cca gct ctg gca ctt gct tca ggc cct tgt 357
 Gln His Glu Pro Arg Xaa Pro Ala Leu Ala Leu Ala Ser Gly Pro Cys
 70 75 80
 gtc tat gtg tat aag aat ctc aga ccc tac ttc aa 392
 Val Tyr Val Tyr Lys Asn Leu Arg Pro Tyr Phe
 85 90

<210> 2025
 <211> 429
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 115..429

<400> 2025
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 gcagacgcct ccaggatctg tcggcagctg ctgttctgag ggagagcaga gacc atg 117
 Met
 1
 tct gac ata gaa gag gtg gtg gaa gag tac gag gag gag gag cag gaa 165
 Ser Asp Ile Glu Glu Val Val Glu Glu Tyr Glu Glu Glu Glu Gln Glu
 5 10 15
 gaa gca gct gtt gaa gag cag gag gag gca gcg gaa gag gat gct gaa 213
 Glu Ala Ala Val Glu Glu Gln Glu Glu Ala Ala Glu Glu Asp Ala Glu
 20 25 30

gca gag gct gag acc gag gag acc agg gca gaa gaa gat gaa gaa gaa	261
Ala Glu Ala Glu Thr Glu Glu Thr Arg Ala Glu Glu Asp Glu Glu Glu	
35 40 45	
gag gaa gca aag gag gct gaa gat ggc cca atg gag gag tcc aaa cca	309
Glu Glu Ala Lys Glu Ala Glu Asp Gly Pro Met Glu Glu Ser Lys Pro	
50 55 60 65	
aag ccc agg tcg ttc atg ccc aac ttg ntg cct ccc aag atc cca gat	357
Lys Pro Arg Ser Phe Met Pro Asn Leu Xaa Pro Pro Lys Ile Pro Asp	
70 75 80	
gga gag aga gtg gac ttn grt gac atc cac sgg aag cgc atg gag aag	405
Gly Glu Arg Val Asp Xaa Xaa Asp Ile His Xaa Lys Arg Met Glu Lys	
85 90 95	
grc ctg aat gag ttg cag gcg ctg	429
Xaa Leu Asn Glu Leu Gln Ala Leu	
100 105	

<210> 2026
 <211> 349
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 26..349

<400> 2026	
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Met Ala Thr Glu His Pro Glu Pro Pro	
1 5	
aaa gca gaa ttg cag ctg ccg ccg ccg cca cct cca ggc cac tat ggc	100
Lys Ala Glu Leu Gln Leu Pro Pro Pro Pro Pro Gly His Tyr Gly	
10 15 20 25	
gcc tgg gct gcc cag gag ctt cag gcc aag ttg gca gag atc gga gct	148
Ala Trp Ala Ala Gln Glu Leu Gln Ala Lys Leu Ala Glu Ile Gly Ala	
30 35 40	
ccg atc cag ggt aat cgc gag gag ctg gtg gag cgg ctg cag agc tac	196
Pro Ile Gln Gly Asn Arg Glu Glu Leu Val Glu Arg Leu Gln Ser Tyr	
45 50 55	
acc cgc cag act ggc atc gtg ctg aat cgg ccg gtt ttg aga ggg gaa	244
Thr Arg Gln Thr Gly Ile Val Leu Asn Arg Pro Val Leu Arg Gly Glu	
60 65 70	
gat ggg gac aaa gcc gct cca cct ccc atg tcg gca cag ctc cct gga	292
Asp Gly Asp Lys Ala Ala Pro Pro Met Ser Ala Gln Leu Pro Gly	
75 80 85	
att ccc atg cca cca cca cct ttg gga ctc ccc cct ctg cag cct cct	340
Ile Pro Met Pro Pro Pro Pro Leu Gly Leu Pro Pro Leu Gln Pro Pro	
90 95 100 105	
ccg cca ccc	349
Pro Pro Pro	

<210> 2027
 <211> 265
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 75..263

<400> 2027

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aagaagagac caag atg aat gca gag ccc gag agg aag ttt ggc gtg gtg      110
                Met Asn Ala Glu Pro Glu Arg Lys Phe Gly Val Val
                1          5          10
gtg gtt ggt gtt ggc cga gcc ggc tcc gtg cgg atg agg gac ttg cgg      158
Val Val Gly Val Gly Arg Ala Gly Ser Val Arg Met Arg Asp Leu Arg
                15          20          25
aat cna cac cct tns tca gcg ttc ctg aac ctg agg aag ggt gtg gat      206
Asn Xaa His Pro Xaa Ser Ala Phe Leu Asn Leu Arg Lys Gly Val Asp
                30          35          40
tcc gca agt ncc tca tcc gcc cgg agc cat ctc gct gcc aam acc ctg      254
Ser Ala Ser Xaa Ser Ser Ala Arg Ser His Leu Ala Ala Xaa Thr Leu
                45          50          55          60
ctt tcc nmt cg      265
Leu Ser Xaa
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<210> 2028

<211> 324

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 143..322

<400> 2028

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awgaagagac caagatgnat rcagagcccg agaggaagtt tgcgtggtgg tggttggtgt      120
tggccgagcc ggctccgtgc gg atg agg gac ttg cgg aat cca cac cct tcc      172
                Met Arg Asp Leu Arg Asn Pro His Pro Ser
                1          5          10
tca gcg ttc ctg aac ctg rtt ggc ttc gtg tcg aga agg gag ctc ggg      220
Ser Ala Phe Leu Asn Leu Xaa Gly Phe Val Ser Arg Arg Glu Leu Gly
                15          20          25
agc att gat gga gtc cag cag att tct ttg gag gat gct ctt tcc agc      268
Ser Ile Asp Gly Val Gln Gln Ile Ser Leu Glu Asp Ala Leu Ser Ser
                30          35          40
caa gag gtg gag gtc gsn ata tct gcm gtg arn nct cca gsc atg agg      316
Gln Glu Val Glu Val Xaa Ile Ser Ala Val Xaa Xaa Pro Xaa Met Arg
                45          50          55
act aca tc      324
Thr Thr
                60
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<210> 2029

<211> 438
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 61..438

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 atataaggct cggaggccgc gaggcttcgc tggagtttcg ccgccgcagt cttcgccacc 60
 atg ccg ccc tac acc gtg gtc tat ttc cca gtt cga ggc cgc tgc gcg 108
 Met Pro Pro Tyr Thr Val Val Tyr Phe Pro Val Arg Gly Arg Cys Ala
 1 5 10 15
 gcc ctg cgc atg ctg ctg gca gat cag ggc cag agc tgg aag gag gag 156
 Ala Leu Arg Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu
 20 25 30
 gtg gtg acc gtg gag acg tgg cag gag ggc tca ctc aaa gcc tcc tgc 204
 Val Val Thr Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys
 35 40 45
 cta tac ggg cag ctc ccc aag ttc cag gac gga gac ctc acc ctg tac 252
 Leu Tyr Gly Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr
 50 55 60
 cag tcc aat acc atc ctg cgt cac ctg ggc cgc acc ctt ggg ctc tat 300
 Gln Ser Asn Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr
 65 70 75 80
 ggg aag gac cag cag gag gca gcc ctg gtg gac atg gtg aat gac ggc 348
 Gly Lys Asp Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly
 85 90 95
 gtg gag gac ctc cgc tgc aaa tac rtc tcc ctc atc tac acc aac tat 396
 Val Glu Asp Leu Arg Cys Lys Tyr Xaa Ser Leu Ile Tyr Thr Asn Tyr
 100 105 110
 gag gcg ggc aag gat gac tat gtg aag gca ctg ccc ggg caa 438
 Glu Ala Gly Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln
 115 120 125

<210> 2030
 <211> 386
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 37..384

<400> 2030
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 Met Thr Thr Tyr Ser Asp
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 aaa ggg gca aag cct gag aga ggc cga ttc ctc cac ttc cac tct gtg 102
 Lys Gly Ala Lys Pro Glu Arg Gly Arg Phe Leu His Phe His Ser Val
 10 15 20
 acc ttc tgg gtt ggc aac gcc aag cag gcc gcg tca ttc tac tgc agc 150

Thr	Phe	Trp	Val	Gly	Asn	Ala	Lys	Gln	Ala	Ala	Ser	Phe	Tyr	Cys	Ser	
	25						30				35					
aag	atg	ggc	ttt	gaa	cct	cta	gcc	tac	agg	ggc	ctg	gag	acc	ggg	tcc	198
Lys	Met	Gly	Phe	Glu	Pro	Leu	Ala	Tyr	Arg	Gly	Leu	Glu	Thr	Gly	Ser	
	40						45				50					
cgg	gag	gtg	gtc	agc	cat	gta	atc	aaa	caa	ggg	aag	att	gtg	ttt	gtc	246
Arg	Glu	Val	Val	Ser	His	Val	Ile	Lys	Gln	Gly	Lys	Ile	Val	Phe	Val	
55					60					65					70	
ctc	tcc	tca	gcg	ctc	aac	ccc	tgg	aac	aaa	gag	atg	ggc	gat	cac	ctg	294
Leu	Ser	Ser	Ala	Leu	Asn	Pro	Trp	Asn	Lys	Glu	Met	Gly	Asp	His	Leu	
				75					80					85		
gtg	aaa	cac	ggg	gac	gga	gtg	aag	gac	att	gcg	ttc	gag	gtg	gaa	gat	342
Val	Lys	His	Gly	Asp	Gly	Val	Lys	Asp	Ile	Ala	Phe	Glu	Val	Glu	Asp	
			90					95					100			
tgt	gac	tac	atc	gtg	cag	tat	ggg	gac	acc	aca	cac	acc	ctg	gt		386
Cys	Asp	Tyr	Ile	Val	Gln	Tyr	Gly	Asp	Thr	Thr	His	Thr	Leu			
	105						110					115				

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 <211> 314
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 128..313

<400> 2031																
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tggacat	atg	ccc	cag	gct	ttc	ctg	ctg	ggg	tcc	atc	cat	gag	cct	gca		169
	Met	Pro	Gln	Ala	Phe	Leu	Leu	Gly	Ser	Ile	His	Glu	Pro	Ala		
	1				5					10						
ggg	gcc	ctc	atg	gag	ccc	cag	ccc	tgc	cct	gga	agc	ttg	gct	gag	agc	217
Gly	Ala	Leu	Met	Glu	Pro	Gln	Pro	Cys	Pro	Gly	Ser	Leu	Ala	Glu	Ser	
15					20				25				30			
ttc	ctg	gag	gag	gag	ctt	cgg	ctc	aat	gct	gag	ctg	agc	cag	ctg	cag	265
Phe	Leu	Glu	Glu	Glu	Leu	Arg	Leu	Asn	Ala	Glu	Leu	Ser	Gln	Leu	Gln	
				35					40				45			
ttt	tcg	gag	cct	gtg	ggc	atc	atc	tac	aat	ccc	gtg	gag	tat	gca	ggg	g
Phe	Ser	Glu	Pro	Val	Gly	Ile	Ile	Tyr	Asn	Pro	Val	Glu	Tyr	Ala	Gly	
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<210> 2032
 <211> 378
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 51..377

<400> 2032

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Met Met

1

gcg agc atg cga gtg gtg aag gag ctg gag gat ctt cag aag aag cct 104
Ala Ser Met Arg Val Val Lys Glu Leu Glu Asp Leu Gln Lys Lys Pro

5

10

15

ccc cca tac ctg cgg aac ctg tcc agc gat gat gcc aat gtc ctg gtg 152
Pro Pro Tyr Leu Arg Asn Leu Ser Ser Asp Asp Ala Asn Val Leu Val

20

25

30

tgg cac gct ctc ctc cta ccc gac caa cct ccc tac cac ctg aaa gcc 200
Trp His Ala Leu Leu Leu Pro Asp Gln Pro Pro Tyr His Leu Lys Ala

35

40

45

50

ttc aac ctg cgc atc agc ttc ccg ccg gag tat ccg ttc aag cct ccc 248
Phe Asn Leu Arg Ile Ser Phe Pro Pro Glu Tyr Pro Phe Lys Pro Pro

55

60

65

atg atc aaa ttc aca acc aag atc tac cac ccc aac gtg gac gag aac 296
Met Ile Lys Phe Thr Thr Lys Ile Tyr His Pro Asn Val Asp Glu Asn

70

75

80

gga cag att tgc ctg ccc atc atc agc agt gag aac tgg aag cct tgc 344
Gly Gln Ile Cys Leu Pro Ile Ile Ser Ser Glu Asn Trp Lys Pro Cys

85

90

95

acc aag act tgc caa gtc cyg gag gcc ctc aat g 378
Thr Lys Thr Cys Gln Val Xaa Glu Ala Leu Asn

100

105

<210> 2033

<211> 187

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 21..185

<400> 2033

aaaaggagan aaataaagca atg ggg gaa tat gcc att tta att agg atg gtc 53
Met Gly Glu Tyr Ala Ile Leu Ile Arg Met Val

1

5

10

agg gaa agc ctt gtt aat aaa ggt ggc ctt ttt aag aat ggt gag gag 101
Arg Glu Ser Leu Val Asn Lys Gly Gly Leu Phe Lys Asn Gly Glu Glu

15

20

25

ggc aga cat gca cag gga aca gaa agg agg aca gtg tgg ctg gag tgg 149
Gly Arg His Ala Gln Gly Thr Glu Arg Arg Thr Val Trp Leu Glu Trp

30

35

40

aat gtg aga gtg gga gtg tgg ttt aaa gat gac atc ag 187
Asn Val Arg Val Gly Val Trp Phe Lys Asp Asp Ile

45

50

55

<210> 2034

<211> 458

<212> DNA

<213> Homo sapiens

SECRET

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<210> 2035
<211> 559
<212> DNA
<213> Homo sapiens
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[illegible]

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atc	cat	ggc	ttc	cgg	gta	cgg	cca	gag	cct	aat	gga	gac	ctt	gac	ttg	360
Ile	His	Gly	Phe	Arg	Val	Arg	Pro	Glu	Pro	Asn	Gly	Asp	Leu	Asp	Leu	
65					70					75					80	
gag	gcc	atg	gtg	gct	gtg	ttt	gga	agc	aag	gga	ctc	cga	gtt	gtg	aaa	408
Glu	Ala	Met	Val	Ala	Val	Phe	Gly	Ser	Lys	Gly	Leu	Arg	Val	Val	Lys	
				85					90					95		
att	agc	tgg	gga	cag	ggc	cac	ttc	tgg	gag	ctt	tgg	cgc	tct	ggc	ctg	456
Ile	Ser	Trp	Gly	Gln	Gly	His	Phe	Trp	Glu	Leu	Trp	Arg	Ser	Gly	Leu	
			100					105					110			
tgg	aac	atg	tct	gac	tgg	att	tgg	gat	gca	cgc	tgg	ctt	gag	gga	aat	504
Trp	Asn	Met	Ser	Asp	Trp	Ile	Trp	Asp	Ala	Arg	Trp	Leu	Glu	Gly	Asn	
			115				120					125				
ata	gcc	ttg	gcc	ctg	ggc	cac	aac	tca	gtg	gtg	cta	tat	gac	cct	gta	552
Ile	Ala	Leu	Ala	Leu	Gly	His	Asn	Ser	Val	Val	Leu	Tyr	Asp	Pro	Val	
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gta	ggg	t														559
Val	Gly															
145																
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<221> CDS																
<222> 106..297																
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gga	at	cact	gct	ag	gag	gtc	tt	gt	ct	ct	gcc	acc	cag	g	cat	117
															Met Ala Ala His	
															1	
ctg	gta	aag	cga	tgc	acg	tgc	ctc	ctg	aga	gaa	gct	gct	cgt	cag	gcc	165
Leu	Val	Lys	Arg	Cys	Thr	Cys	Leu	Leu	Arg	Glu	Ala	Ala	Arg	Gln	Ala	
5						10				15				20		
cct	kcc	atg	gct	cca	gtt	ggc	cga	ctg	aga	ctt	gcc	tgg	gta	gcc	cat	213
Pro	Xaa	Met	Ala	Pro	Val	Gly	Arg	Leu	Arg	Leu	Ala	Trp	Val	Ala	His	
				25				30					35			
aag	act	ctg	act	tcc	tca	gcc	acc	tca	ccc	att	tcc	cac	ctc	cca	gg	261
Lys	Thr	Leu	Thr	Ser	Ser	Ala	Thr	Ser	Pro	Ile	Ser	His	Leu	Pro	Gly	
			40					45				50				
tcc	ttg	atg	gag	cyg	gtg	gag	aag	gaa	cga	gca	tct	ac				299
Ser	Leu	Met	Glu	Xaa	Val	Glu	Lys	Glu	Arg	Ala	Ser					
			55					60								
<210> 2037																
<211> 287																
<212> DNA																
<213> Homo sapiens																

<220>
 <221> CDS
 <222> 112..285

<400> 2037
 agtgttttct gggatgggaa ccacgccgct tcccagtctc tgtgcgaggc gtgaagcgcg 60
 gacctttcaa caagggtttt attaattctc acgctgcggc cctggaaagc g atg gag 117
 Met Glu
 1
 gtg gcg gct aat tgc tcc cta cgg gtg aag aga cct ctg ttg gat ccc 165
 Val Ala Ala Asn Cys Ser Leu Arg Val Lys Arg Pro Leu Leu Asp Pro
 5 10 15
 cgc ttc gag ggt tac aag ctc tct ctt gag ccg ctg cct tgt tac cag 213
 Arg Phe Glu Gly Tyr Lys Leu Ser Leu Glu Pro Leu Pro Cys Tyr Gln
 20 25 30
 ctg gag ctt gac gca ggt ggg aag cgg cgg cgc cct tcg tac tcc gtt 261
 Leu Glu Leu Asp Ala Gly Gly Lys Arg Arg Arg Pro Ser Tyr Ser Val
 35 40 45 50
 cct ttc ccc ttt cgg ctg cct ccg gc 287
 Pro Phe Pro Phe Arg Leu Pro Pro
 55

<210> 2038
 <211> 376
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 92..376

<400> 2038
 ggggtcagaa cactggcggc cgatcccaac gaggtccct ggagcccgac gcagagcagc 60
 gccctggccg ggccaagcag gagccggcat c atg gat tcc ttc aaa gta gtg 112
 Met Asp Ser Phe Lys Val Val
 1 5
 ctg gag ggg cca gca cct tgg ggc ttc cgg ctg caa ggg ggc aag gac 160
 Leu Glu Gly Pro Ala Pro Trp Gly Phe Arg Leu Gln Gly Gly Lys Asp
 10 15 20
 ttc aat gtg ccc ctc tcc att tcc cgg ctc act cct ggg ggc aaa gcg 208
 Phe Asn Val Pro Leu Ser Ile Ser Arg Leu Thr Pro Gly Gly Lys Ala
 25 30 35
 gcg cag gcc gga gtg gcc gtg ggt gac tgg gtg ctg agc atc gat ggc 256
 Ala Gln Ala Gly Val Ala Val Gly Asp Trp Val Leu Ser Ile Asp Gly
 40 45 50 55
 gag aat gcg ggt agc ctc aca cac atc gaa gct cag aac aag atc cgg 304
 Glu Asn Ala Gly Ser Leu Thr His Ile Glu Ala Gln Asn Lys Ile Arg
 60 65 70
 gcc tgc ggg gag cgc ctc agc ctg ggc ctc agc agg gcc cag ccg gtt 352
 Ala Cys Gly Glu Arg Leu Ser Leu Gly Leu Ser Arg Ala Gln Pro Val
 75 80 85
 cag agc aaa cng cag aag gcc ccc 376

004220" 166EF560

Gln Ser Lys Xaa Gln Lys Ala Pro
 90 95

<210> 2039
 <211> 516
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 119..514

<400> 2039
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 ggcttaggcc gcagaggctt gtgggcctga gcccacgctg gactctgtcc gttctgcg 118
 atg act gct gct ctg gcc gtc gtc acg acg tcg ggt ttg gaa gat ggg 166
 Met Thr Ala Ala Leu Ala Val Val Thr Thr Ser Gly Leu Glu Asp Gly
 1 5 10 15
 gtg cct agg tcc cgt ggc gaa ggg acc ggg gaa gtg gtc ttg gag cgg 214
 Val Pro Arg Ser Arg Gly Glu Gly Thr Gly Glu Val Val Leu Glu Arg
 20 25 30
 ggg ccc ggc gcg gcc tac cac atg ttc gtg gtg atg gag gac ttg gtg 262
 Gly Pro Gly Ala Ala Tyr His Met Phe Val Val Met Glu Asp Leu Val
 35 40 45
 gag aag ctg aag ctg ctc cgc tac gag gag gag ttc ctc cgg aag agc 310
 Glu Lys Leu Lys Leu Leu Arg Tyr Glu Glu Glu Phe Leu Arg Lys Ser
 50 55 60
 aac ctg aag gcc ccg tcc aga cac tat ttt gca ctg cct acc aac cct 358
 Asn Leu Lys Ala Pro Ser Arg His Tyr Phe Ala Leu Pro Thr Asn Pro
 65 70 75 80
 ggc gaa cag ttc tac atg ttt tgt act ctt gct gct tgg ttg att aat 406
 Gly Glu Gln Phe Tyr Met Phe Cys Thr Leu Ala Ala Trp Leu Ile Asn
 85 90 95
 aaa gcg gga cgt ccc ttt gag cag cct caa gaa tat gat gac cct aat 454
 Lys Ala Gly Arg Pro Phe Glu Gln Pro Gln Glu Tyr Asp Asp Pro Asn
 100 105 110
 gca aca ata tct aac ata cta tcc gag ctt cgg tca ttt gga aga ctg 502
 Ala Thr Ile Ser Asn Ile Leu Ser Glu Leu Arg Ser Phe Gly Arg Leu
 115 120 125
 cag att tcc tcc tt 516
 Gln Ile Ser Ser
 130

<210> 2040
 <211> 354
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 77..352

001220"666ET560

<400> 2040
 gagttccgcg tcgtcgcgca gagctgactc tgggagggcgt ttggggcccag agaagtggat 60
 ccgcccgttg cgccgc atg gag tcc gaa tcg gaa agc ggg gct gct gct gac 112
 Met Glu Ser Glu Ser Glu Ser Gly Ala Ala Ala Asp
 1 5 10
 acc ccc cca ctg gag acc cta agc ttc cat ggt gat gaa gag att atc 160
 Thr Pro Pro Leu Glu Thr Leu Ser Phe His Gly Asp Glu Glu Ile Ile
 15 20 25
 gag gtg gta gaa ctt gat ccc ggt ccg ccg gac cca gat gac ctg gcc 208
 Glu Val Val Glu Leu Asp Pro Gly Pro Pro Asp Pro Asp Asp Leu Ala
 30 35 40
 cag gag atg gaa gat gtg gac ttt gag gaa gaa gag gag gaa gag ggc 256
 Gln Glu Met Glu Asp Val Asp Phe Glu Glu Glu Glu Glu Glu Gly
 45 50 55 60
 aac gaa gag ggc tgg gtt cta gaa ccc cag gaa ggg gtg gtc ggc agc 304
 Asn Glu Glu Gly Trp Val Leu Glu Pro Gln Glu Gly Val Val Gly Ser
 65 70 75
 atg gag ggc ccc gac gat agc gag gtc acc ttt gca ttg cac tca gca 352
 Met Glu Gly Pro Asp Asp Ser Glu Val Thr Phe Ala Leu His Ser Ala
 80 85 90
 tc 354

 <210> 2041
 <211> 306
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> CDS
 <222> 84...305

 <400> 2041
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 aggcggccgc tgacagcacc agc atg tct tac agt gtg acc ctg act ggg ccc 113
 Met Ser Tyr Ser Val Thr Leu Thr Gly Pro
 1 5 10
 ggg ccc tgg ggc ttc cgk ytg cag ggg ggc mar gac ttc aac atg ccc 161
 Gly Pro Trp Gly Phe Arg Leu Gln Gly Gly Xaa Asp Phe Asn Met Pro
 15 20 25
 ctc acc ctg cag aaa tca aag cgt ccc att ccc atc tcc acg aca gca 209
 Leu Thr Leu Gln Lys Ser Lys Arg Pro Ile Pro Ile Ser Thr Thr Ala
 30 35 40
 cct cca gtc cag acc cct ctg ccg gtg atc cct cac cag aag gtg gta 257
 Pro Pro Val Gln Thr Pro Leu Pro Val Ile Pro His Gln Lys Val Val
 45 50 55
 gtc aac tct cca gcc aac gcc gac tac cag gaa cgc ttc aac ccc agt g 306
 Val Asn Ser Pro Ala Asn Ala Asp Tyr Gln Glu Arg Phe Asn Pro Ser
 60 65 70

 <210> 2042
 <211> 262
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 89..262

<400> 2042
 ctttccccag aggcgagctt catcaggcag gagccagagg ccagagagac agcgtgcagc 60
 tccagaggcg gccgctgaca gcaccagc atg tct tac agt gtg acc ctg act 112
 Met Ser Tyr Ser Val Thr Leu Thr
 1 5
 ggg ccc ggg ccc tgg ggc ttc cgt ctg cag ggg ggc aag gac ttc aac 160
 Gly Pro Gly Pro Trp Gly Phe Arg Leu Gln Gly Gly Lys Asp Phe Asn
 10 15 20
 atg ccc ctc act atc tcc cgg atc aca cca ggc agc aag gca gcc cag 208
 Met Pro Leu Thr Ile Ser Arg Ile Thr Pro Gly Ser Lys Ala Ala Gln
 25 30 35 40
 tcc cag ctc agc cag ggt gac ctc gtg gtg gcc att gac ggc gtc aac 256
 Ser Gln Leu Ser Gln Gly Asp Leu Val Val Ala Ile Asp Gly Val Asn
 45 50 55
 aca gac 262
 Thr Asp

<210> 2043
 <211> 429
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 89..427

<400> 2043
 aagctattct taggagcctc tcaagagctc cacgcagccc ggctgggcag caagggacag 60
 aacagaggcg gccgctgaca gcaccagc atg tct tac agt gtg acc ctg act 112
 Met Ser Tyr Ser Val Thr Leu Thr
 1 5
 ggg ccc ggg ccc tgg ggc ttc cgt ctg cag ggg ggc aag gac ttc aac 160
 Gly Pro Gly Pro Trp Gly Phe Arg Leu Gln Gly Gly Lys Asp Phe Asn
 10 15 20
 atg ccc ctc act atc tcc cgg atc aca cca ggc agc aag gca gcc cag 208
 Met Pro Leu Thr Ile Ser Arg Ile Thr Pro Gly Ser Lys Ala Ala Gln
 25 30 35 40
 tcc cag ctc agc cag ggt gac ctc gtg gtg gcc att gac ggc gtc aac 256
 Ser Gln Leu Ser Gln Gly Asp Leu Val Val Ala Ile Asp Gly Val Asn
 45 50 55
 aca gac acc atg acc cac ctg gaa gcc cag aac aag atc aag tct gcc 304
 Thr Asp Thr Met Thr His Leu Glu Ala Gln Asn Lys Ile Lys Ser Ala
 60 65 70
 agc tac aac ttg agc ctc acc ctg cag aaa tca aag cgt ccc att ccc 352
 Ser Tyr Asn Leu Ser Leu Thr Leu Gln Lys Ser Lys Arg Pro Ile Pro
 75 80 85
 atc tcc acg aca gca cct cca gtc cag acc cct ctg ccg gtg atc cct 400

Ile Ser Thr Thr Ala Pro Pro Val Gln Thr Pro Leu Pro Val Ile Pro
 90 95 100
 cac cag aag gtg gta gtc aac tct cca gc
 His Gln Lys Val Val Val Asn Ser Pro
 105 110

429

<210> 2044
 <211> 354
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 197..352

<400> 2044
 tagcgggtggc cgccgagcgg gatctgtgcg gggagccgga aatggttgtg gactacgtct 60
 gtgcggctgc gtggggctcg gccgcgcgga ctgaaggaga ctgaaggccc tcggatgsc 120
 agaacctgta ggccgcaccg tggacttggt ctymatcgag ggggtgctgg ggggacctga 180
 tgtggcacca aatgam atg aay aaa gct cca cag tcc aca ggc ccc cca csc 232
 Met Asn Lys Ala Pro Gln Ser Thr Gly Pro Pro Xaa
 1 5 10
 gcc cca tcc ccc gga ctc cca sag cca gcg ttt ccc ccg ggg cag aca 280
 Ala Pro Ser Pro Gly Leu Pro Xaa Pro Ala Phe Pro Pro Gly Gln Thr
 15 20 25
 gcg ccg gtg gtg ttc agt acg cca caa gcg aca caa atg aac acg cct 328
 Ala Pro Val Val Phe Ser Thr Pro Gln Ala Thr Gln Met Asn Thr Pro
 30 35 40
 tct cag ccc cgc cas cac ttc tac cc 354
 Ser Gln Pro Arg Xaa His Phe Tyr
 45 50

<210> 2045
 <211> 273
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 116..271

<400> 2045
 gataccctca cctcccaacc ccaggccctc ggatgccag aacctgtagg ccgcaccgtg 60
 gacttggtct taatcgaggg ggtgctgggg ggaccctgat gtggcaccaa atgaa atg 118
 Met
 1
 aac aaa gct cca cag tcc aca ggc ccc cca ccc gcc cca tcc ccc gga 166
 Asn Lys Ala Pro Gln Ser Thr Gly Pro Pro Pro Ala Pro Ser Pro Gly
 5 10 15
 ctc cca cag cca gcg ttt ccc ccg ggg cag aca gcg ccg gtg gtg ttc 214
 Leu Pro Gln Pro Ala Phe Pro Pro Gly Gln Thr Ala Pro Val Val Phe
 20 25 30

agt acg cca caa gcg aca caa atg aac acg cct tct cag ccc cgc cas 262
 Ser Thr Pro Gln Ala Thr Gln Met Asn Thr Pro Ser Gln Pro Arg Xaa
 35 40 45
 cac ttc tac cc 273
 His Phe Tyr
 50

<210> 2046
 <211> 484
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 48..482

<400> 2046
 agatcggctt ccggttccgg tgggctctga accctgaaag gctcgcg atg cct cta 56
 Met Pro Leu
 1
 cac aag tat ccc gtg tgg ctc tgg aag cgg ctg cag ctg cgg gag ggc 104
 His Lys Tyr Pro Val Trp Leu Trp Lys Arg Leu Gln Leu Arg Glu Gly
 5 10 15
 atc tgt tcc cgc ctg ccc ggc cac tac ctg cgc tcc ctg gag gag gag 152
 Ile Cys Ser Arg Leu Pro Gly His Tyr Leu Arg Ser Leu Glu Glu Glu
 20 25 30 35
 cgg acg ccc act ccc gtg cac tat agg cct cat ggg gcc aag ttc aag 200
 Arg Thr Pro Thr Pro Val His Tyr Arg Pro His Gly Ala Lys Phe Lys
 40 45 50
 atc aac ccc aag aac ggg cag cgg gag cgt gtg gag gac gtg ccc att 248
 Ile Asn Pro Lys Asn Gly Gln Arg Glu Arg Val Glu Asp Val Pro Ile
 55 60 65
 ccc atc tac ttt ccc ccc gaa tcc cag cgg ggg ttg tgg ggc ggc gag 296
 Pro Ile Tyr Phe Pro Pro Glu Ser Gln Arg Gly Leu Trp Gly Gly Glu
 70 75 80
 ggc tgg atc ctg ggc caa ata tat gcc aac aac gac aag ctc tcc aag 344
 Gly Trp Ile Leu Gly Gln Ile Tyr Ala Asn Asn Asp Lys Leu Ser Lys
 85 90 95
 agg ctg aag aaa gtg tgg aag cca cag ctg ttt gag cga gag ttc tac 392
 Arg Leu Lys Lys Val Trp Lys Pro Gln Leu Phe Glu Arg Glu Phe Tyr
 100 105 110 115
 agt gag atc ctg gac aag aag ttc aca gtg act gtg acc atg cgg acc 440
 Ser Glu Ile Leu Asp Lys Lys Phe Thr Val Thr Val Thr Met Arg Thr
 120 125 130
 ctg gac ctc atc gat gag gct tat ggg ctc gac ttt tac atc ct 484
 Leu Asp Leu Ile Asp Glu Ala Tyr Gly Leu Asp Phe Tyr Ile
 135 140 145

<210> 2047
 <211> 266
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 91..264

<400> 2047
 gaggacttga cctctggccc aagatggtgg cgcccagagc ttcgctcttg ctgctcccct 60
 gaggtgaact gaagccagca gccccgcac atg tca aag ctc ggc cgg gcc gcc 114
 Met Ser Lys Leu Gly Arg Ala Ala
 1 5
 cgg ggc ctc agg aag ccc gag aga ggc gtt tcc atc aac cag ttt tgc 162
 Arg Gly Leu Arg Lys Pro Glu Arg Gly Val Ser Ile Asn Gln Phe Cys
 10 15 20
 aag gag ttc aat gag agg aca aag gac atc aag gaa ggc att cct ctg 210
 Lys Glu Phe Asn Glu Arg Thr Lys Asp Ile Lys Glu Gly Ile Pro Leu
 25 30 35 40
 cct acc aag att tta gtg aag cct gac agg aca ttt gar att aag att 258
 Pro Thr Lys Ile Leu Val Lys Pro Asp Arg Thr Phe Glu Ile Lys Ile
 45 50 55
 gga cag cc 266
 Gly Gln

<210> 2048
 <211> 443
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 143..442

<400> 2048
 gcggagagct tggactggga gccc aaagct cggctgggca gcgggagagg aggagccgca 60
 ggagctgcag ctctgccagc ttgggcccag cctagagaca ccggcctggc tgggccacgc 120
 cagccgcaga ccgtggctga gc atg gag ctg tcc ccc cgc agt cct ccg gag 172
 Met Glu Leu Ser Pro Arg Ser Pro Pro Glu
 1 5 10
 atg ctg gag gag tcg gat tgc cgg tca ccc ctg gag ctg aag tca gcc 220
 Met Leu Glu Glu Ser Asp Cys Pro Ser Pro Leu Glu Leu Lys Ser Ala
 15 20 25
 ccc agc aag aag atg tgg att aag ctt cgg tct ctg ctg cgc tac atg 268
 Pro Ser Lys Lys Met Trp Ile Lys Leu Arg Ser Leu Leu Arg Tyr Met
 30 35 40
 gtg aag cag ttg gag aat ggg gag ata aac att gag gag ctg aag aaa 316
 Val Lys Gln Leu Glu Asn Gly Glu Ile Asn Ile Glu Glu Leu Lys Lys
 45 50 55
 aat ctg gag tac aca gct tct ctg ctg gaa gcc gtc tac ata gat gag 364
 Asn Leu Glu Tyr Thr Ala Ser Leu Leu Glu Ala Val Tyr Ile Asp Glu
 60 65 70
 aca cgg caa atc ttg gac acg gag gac gag ctg cag gag ctg cgg tca 412
 Thr Arg Gln Ile Leu Asp Thr Glu Asp Glu Leu Gln Glu Leu Arg Ser
 75 80 85 90
 gat gcc gtg cct tcg gag gtg cgg gac tgg c 443

Asp Ala Val Pro Ser Glu Val Arg Asp Trp
 95 100

<210> 2049
 <211> 261
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 74..259

<400> 2049
 atgtgaccgg aagggctcct cacggacgcc gtccctcctc ggcgcgccct gagcgcccgg 60
 cccgaccccg gcc atg ggg tgc tgc tac agc agc gag aac gag gac tcg 109
 Met Gly Cys Cys Tyr Ser Ser Glu Asn Glu Asp Ser
 1 5 10
 gac cag gac cga gag gag cgg aag ctg ctg ctg gac cct agc agc ccc 157
 Asp Gln Asp Arg Glu Glu Arg Lys Leu Leu Leu Asp Pro Ser Ser Pro
 15 20 25
 cct acc aaa gct ctc aat gga gcc gag ccc aac tac cac agc ctg cct 205
 Pro Thr Lys Ala Leu Asn Gly Ala Glu Pro Asn Tyr His Ser Leu Pro
 30 35 40
 tcc gct cgc act gat gag cag gcc ctg ctc tct tcc atc ctt gcc aag 253
 Ser Ala Arg Thr Asp Glu Gln Ala Leu Leu Ser Ser Ile Leu Ala Lys
 45 50 55 60
 aca gmc aw 261
 Thr Xaa

<210> 2050
 <211> 413
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 109..411

<400> 2050
 agtggatgtt gctggaaccc acgcgaggga aggaagagac gcaggcaggc tgcggttacc 60
 caagcggccca cccgggcctc agggaccct tccccgagag acggcacc atg acc cag 117
 Met Thr Gln
 1
 gga aag ctc tcc gtg gct aac aag gcc cct ggg acc gag ggg cag cag 165
 Gly Lys Leu Ser Val Ala Asn Lys Ala Pro Gly Thr Glu Gly Gln Gln
 5 10 15
 cag gtg cat ggc gag aag aag gag gct cca gca gtg ccc tca gcc cca 213
 Gln Val His Gly Glu Lys Lys Glu Ala Pro Ala Val Pro Ser Ala Pro
 20 25 30 35
 ccc tcc tat gag gaa gcc acc tct ggg gag ggg atg aag gca ggg gcc 261
 Pro Ser Tyr Glu Glu Ala Thr Ser Gly Glu Gly Met Lys Ala Gly Ala
 40 45 50

ttc ccc cca gcc ccc aca gcg gtg cct ctc cac cct agc tgg gcc tat	309
Phe Pro Pro Ala Pro Thr Ala Val Pro Leu His Pro Ser Trp Ala Tyr	
55 60 65	
gtg gac ccc agc agc agc tcc agc tat tac aac ggt ttc ccc acc gga	357
Val Asp Pro Ser Ser Ser Ser Ser Tyr Tyr Asn Gly Phe Pro Thr Gly	
70 75 80	
gac cat gag ctc ttc acc act ttc agc tgg gat gac cag aaa gtt cgt	405
Asp His Glu Leu Phe Thr Thr Phe Ser Trp Asp Asp Gln Lys Val Arg	
85 90 95	
cga gtc tt	413
Arg Val	
100	

<210> 2051
 <211> 391
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 151..390

<400> 2051	
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agtgcgggac ctgaggctgt gtgtgtgtga actgtggcca ctggcgggggt cgggggggggg	120
cagcggcgga cckyytcgga cggcaaagcc atg act aca gta gtg gta cat gtg	174
Met Thr Thr Val Val Val His Val	
1 5	
gac tcc aaa gct gag ctc act acc ctg ctg gag cag tgg gaa aag gaa	222
Asp Ser Lys Ala Glu Leu Thr Thr Leu Leu Glu Gln Trp Glu Lys Glu	
10 15 20	
cat ggc agt ggg cag gac atg gta cct atc ctt acc agg atg tct caa	270
His Gly Ser Gly Gln Asp Met Val Pro Ile Leu Thr Arg Met Ser Gln	
25 30 35 40	
ttg att gaa aaa gaa act gaa gag tat cgt aaa ggg gat cca gac cca	318
Leu Ile Glu Lys Glu Thr Glu Glu Tyr Arg Lys Gly Asp Pro Asp Pro	
45 50 55	
ttt gat gat cga cat cnt ggt cga gct gat cca gag tgt atg ctg ggc	366
Phe Asp Asp Arg His Xaa Gly Arg Ala Asp Pro Glu Cys Met Leu Gly	
60 65 70	
cac ttg ctg aga ata ctc ttc aag a	391
His Leu Leu Arg Ile Leu Phe Lys	
75 80	

<210> 2052
 <211> 352
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 118..351

<400> 2052
 acttccggtc gctttcggtc tctcagcggc cggtttctgc gtccgctgcc gcaggttcca 60
 ccgcgctcca ggtatttttt tttctgaagg aaagctgctt cctcatatgt ttcaaga 117
 atg gct ctc cct atc att gta aaa tgg ggt gga cag gag tat tca gtg 165
 Met Ala Leu Pro Ile Ile Val Lys Trp Gly Gly Gln Glu Tyr Ser Val
 1 5 10 15
 acc aca cky tca gaa gat gat act gtg ctc gat ctc aaa gag tkt ctc 213
 Thr Thr Xaa Ser Glu Asp Asp Thr Val Leu Asp Leu Lys Glu Xaa Leu
 20 25 30
 aag acc ctt aca gga gtt ctt cca gaa cgc caa aag tta ctt gga ctc 261
 Lys Thr Leu Thr Gly Val Leu Pro Glu Arg Gln Lys Leu Leu Gly Leu
 35 40 45
 ara gtt aaa nny aaa cct gca gar rat gat gtt aag ctt ggr gct ctc 309
 Xaa Val Lys Xaa Lys Pro Ala Glu Xaa Asp Val Lys Leu Gly Ala Leu
 50 55 60
 ara ctg ara ccn rat rck aaa atc atg atg atg gga act cgt g 352
 Xaa Leu Xaa Pro Xaa Xaa Lys Ile Met Met Met Gly Thr Arg
 65 70 75

<210> 2053
 <211> 460
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 258..458

<400> 2053
 attgggcgga aggttcgctg gcactccggt ggtcttccag ctggtgggag ttgacgacgc 60
 ggtgctgggc gttgggaccc tactttatct agttcgggaa gttgggttgt ggggtcatatc 120
 ctgtctgtct gctccagct ttcttgggtt tcttccgacg gcgtggggcc tcgctaagga 180
 attccccgcc cctcagggcc acggcttttag cgggtgtcttt tgcgagttct tcgtaagtac 240
 atcttaaagc tgtcaag atg gtt cta gca gac ctt gga aga aaa ata aca 290
 Met Val Leu Ala Asp Leu Gly Arg Lys Ile Thr
 1 5 10
 tca gca tta cgc tcg ttg agc aat gcc acc att atc aat gaa gag gta 338
 Ser Ala Leu Arg Ser Leu Ser Asn Ala Thr Ile Ile Asn Glu Glu Val
 15 20 25
 ttg aat gct atg cta aaa gaa gtc tgt acc gct ttg ttg gaa gca gat 386
 Leu Asn Ala Met Leu Lys Glu Val Cys Thr Ala Leu Leu Glu Ala Asp
 30 35 40
 gtt aat att aaa cta gtg aag caa cta aga gaa aat gtt aag tct gct 434
 Val Asn Ile Lys Leu Val Lys Gln Leu Arg Glu Asn Val Lys Ser Ala
 45 50 55
 att gat ctt gaa gag atg gca tct gg 460
 Ile Asp Leu Glu Glu Met Ala Ser
 60 65

<210> 2054
 <211> 183
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 23..181

<400> 2054

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acagttacgc gccgcacgga tc atg gcc gca gcc gct ctg ggg cag ctg ttt      52
                        Met Ala Ala Ala Ala Leu Gly Gln Leu Phe
                        1           5           10
gag ggc atg aag gcg ttc aaa ggc aaa gac cag cag gtg cgc ctc ttc      100
Glu Gly Met Lys Ala Phe Lys Gly Lys Asp Gln Gln Val Arg Leu Phe
                        15           20           25
cgc ccc tgg ctc aac atg gac cgg atg ctg cgc tca gcc atg cgc ctg      148
Arg Pro Trp Leu Asn Met Asp Arg Met Leu Arg Ser Ala Met Arg Leu
                        30           35           40
tgc ctg ccg agt ttc gac aag ctg gag ttg ctg ga      183
Cys Leu Pro Ser Phe Asp Lys Leu Glu Leu Leu
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<210> 2055

<211> 665

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<213> Homo sapiens

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<221> CDS

<222> 7..663

<400> 2055

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      Met Ala Ala Ala Ala Ala Ala Ala Pro Ser Gly Gly Gly Gly
      1           5           10
gga ggc gag gag gag aga ctg grr gaa aag tca gaa gac cag gac ctc      96
Gly Gly Glu Glu Glu Arg Leu Xaa Glu Lys Ser Glu Asp Gln Asp Leu
      15           20           25           30
sag ggc ctc aag gac raa ccc ctc aag ttt aan rwg gtg aag aaa gat      144
Xaa Gly Leu Lys Asp Xaa Pro Leu Lys Phe Xaa Xaa Val Lys Lys Asp
      35           40           45
aag aaa gaa gag aaa gag ggc aag cat gag ccc gtg cag cca tca gcc      192
Lys Lys Glu Glu Lys Glu Gly Lys His Glu Pro Val Gln Pro Ser Ala
      50           55           60
cac cac tct gct gag ccc gca gag gca ggc aaa gca gag aca tca nna      240
His His Ser Ala Glu Pro Ala Glu Ala Gly Lys Ala Glu Thr Ser Xaa
      65           70           75
ggg tca ggc tcc gcc ccg gct gtg ccg gaa gct tct gcc tcc ccc aaa      288
Gly Ser Gly Ser Ala Pro Ala Val Pro Glu Ala Ser Ala Ser Pro Lys
      80           85           90
cag cgg cgc tcc atc atc cgt gac cgg gga mcc atg kat gat gac ccc      336
Gln Arg Arg Ser Ile Ile Arg Asp Arg Gly Xaa Met Xaa Asp Asp Pro
      95           100           105           110
acc ctg cct gaa ggc tgg aca cgg aag ctt aag caa agg aaa tct ggc      384
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Thr	Leu	Pro	Glu	Gly	Trp	Thr	Arg	Lys	Leu	Lys	Gln	Arg	Lys	Ser	Gly		
				115					120					125			
cgc	tct	gct	ggg	aag	tat	gat	gtg	tat	ttg	atc	aat	ccc	cag	gga	aaa		432
Arg	Ser	Ala	Gly	Lys	Tyr	Asp	Val	Tyr	Leu	Ile	Asn	Pro	Gln	Gly	Lys		
			130					135					140				
gcc	ttt	cgc	tct	aaa	gtg	gag	ttg	att	gcg	tac	ttc	gaa	aag	gta	ggc		480
Ala	Phe	Arg	Ser	Lys	Val	Glu	Leu	Ile	Ala	Tyr	Phe	Glu	Lys	Val	Gly		
			145				150				155						
gac	aca	tcc	ctg	gac	cct	aat	gat	ttt	gac	ttc	acg	gta	act	ggg	aga		528
Asp	Thr	Ser	Leu	Asp	Pro	Asn	Asp	Phe	Asp	Phe	Thr	Val	Thr	Gly	Arg		
			160			165				170							
ggg	agc	ccc	tcc	cgg	cga	gag	cag	aaa	cca	cct	aag	awg	ccc	aaa	tct		576
Gly	Ser	Pro	Ser	Arg	Arg	Glu	Gln	Lys	Pro	Pro	Lys	Xaa	Pro	Lys	Ser		
				175		180			185					190			
ccc	aaa	gct	cca	gga	act	ggc	aga	ggc	cgg	gga	cgc	ccc	aaa	ggg	agc		624
Pro	Lys	Ala	Pro	Gly	Thr	Gly	Arg	Gly	Arg	Gly	Arg	Pro	Lys	Gly	Ser		
				195			200						205				
ggc	acc	acg	aga	ccc	aag	gcg	gcc	acg	tca	gag	ggg	gtg	ca				665
Gly	Thr	Thr	Arg	Pro	Lys	Ala	Ala	Thr	Ser	Glu	Gly	Val					
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ggaacggaga	gaaccgggac	ccccctgcgg	gnaccgga	ctgatctgac	agg	atg											176
						Met											
						1											
gca	tct	gat	gac	ttt	gac	ata	gtr	att	gag	gcc	atg	ctg	gaa	gct	ccc		224
Ala	Ser	Asp	Asp	Phe	Asp	Ile	Val	Ile	Glu	Ala	Met	Leu	Glu	Ala	Pro		
			5				10				15						
tat	aaa	aaa	gaa	gag	gat	gag	caa	caa	agg	aaa	gaa	gtt	aaa	aag	gat		272
Tyr	Lys	Lys	Glu	Glu	Asp	Glu	Gln	Gln	Arg	Lys	Glu	Val	Lys	Lys	Asp		
			20			25			30								
tat	cct	agc	aat	acc	acc	agc	agc	acc	agc	aac	agt	ggc	aat	gag	acc		320
Tyr	Pro	Ser	Asn	Thr	Thr	Ser	Ser	Thr	Ser	Asn	Ser	Gly	Asn	Glu	Thr		
			35			40			45								
agt	gga	agc	agc	acc	atc	ggg	gag	aca	agc	aat	cgt	agt	cga	gat	cgg		368
Ser	Gly	Ser	Ser	Thr	Ile	Gly	Glu	Thr	Ser	Asn	Arg	Ser	Arg	Asp	Arg		
			50		55		60		65								
gat	cgg	tat	aga	cgg	aga	aat	agt	cgg	agc	cga	agt	cca	ggg	cgg	cag		416
Asp	Arg	Tyr	Arg	Arg	Arg	Asn	Ser	Arg	Ser	Arg	Ser	Pro	Gly	Arg	Gln		
			70			75			80								
tgt	cgt	cac	cgt	agc	cgt	agc	tgg	gat	cgt	cga	cat	ggg	agt	gag	tcg		464
Cys	Arg	His	Arg	Ser	Arg	Ser	Trp	Asp	Arg	Arg	His	Gly	Ser	Glu	Ser		

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85 90 95 474
cga agt cgg g
Arg Ser Arg
100

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<212> DNA
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<220>
<221> CDS
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Met Phe Gln Val Pro Asp Ser
1 5
gag ggc ggc cgc gcc ggc tcc agg gcc atg aag ccc cca gga gga gaa 102
Glu Gly Gly Arg Ala Gly Ser Arg Ala Met Lys Pro Pro Gly Gly Glu
10 15 20
tcg agc aat ctt ttt gga agt cca gaa gaa gct act cct tcc agc agg 150
Ser Ser Asn Leu Phe Gly Ser Pro Glu Glu Ala Thr Pro Ser Ser Arg
25 30 35
cct aat agg atg gca tct aat att ttt gga cca aca gaa gaa cct cag 198
Pro Asn Arg Met Ala Ser Asn Ile Phe Gly Pro Thr Glu Glu Pro Gln
40 45 50 55
aac ata ccc aag agg aca aat ccc cca ggg ggt aaa gga agt ggt atc 246
Asn Ile Pro Lys Arg Thr Asn Pro Pro Gly Gly Lys Gly Ser Gly Ile
60 65 70
ttt gac gaa tca acc ccc gtg cag act cga cag cac cwr aac cca cct 294
Phe Asp Glu Ser Thr Pro Val Gln Thr Arg Gln His Xaa Asn Pro Pro
75 80 85
gga ggg aag acc agc gac att ttt ggg tct ccg gtc act gcc act tca 342
Gly Gly Lys Thr Ser Asp Ile Phe Gly Ser Pro Val Thr Ala Thr Ser
90 95 100
cgc ttg gca cac cca ann aaa ccc aag gat cat gtt ttc tta tgt gaa 390
Arg Leu Ala His Pro Xaa Lys Pro Lys Asp His Val Phe Leu Cys Glu
105 110 115
gga gaa gaa cca aaa tcg gat ctt aaa gct gca agg agc atc ccg gct 438
Gly Glu Glu Pro Lys Ser Asp Leu Lys Ala Ala Arg Ser Ile Pro Ala
120 125 130 135
gga gca gag cca ggt g 454
Gly Ala Glu Pro Gly
140

<210> 2058
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> CDS

<222> 8..415

<400> 2058

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	Met	Gly	Ala	Leu	Thr	Ser	Arg	Gln	His	Ala	Gly	Val	Glu	Glu		
	1				5				10							
gtg	gac	atc	ccg	tct	aat	tcc	gtg	tac	cgc	tac	ccg	ccc	aag	tcc	gga	97
Val	Asp	Ile	Pro	Ser	Asn	Ser	Val	Tyr	Arg	Tyr	Pro	Pro	Lys	Ser	Gly	
15				20					25					30		
agc	tat	ttt	gcc	agc	cac	ttc	att	atg	gga	gag	aag	ttt	gac	tca		145
Ser	Tyr	Phe	Ala	Ser	His	Phe	Ile	Met	Gly	Gly	Glu	Lys	Phe	Asp	Ser	
			35						40				45			
act	cat	cct	gaa	ggg	tac	ctg	ttt	gga	gag	aac	agc	gat	ctg	aac	ttt	193
Thr	His	Pro	Glu	Gly	Tyr	Leu	Phe	Gly	Glu	Asn	Ser	Asp	Leu	Asn	Phe	
		50						55					60			
ctg	ggg	aac	aga	cca	ggt	gtg	ttt	cct	tac	gcc	gcc	cca	cct	ccc	caa	241
Leu	Gly	Asn	Arg	Pro	Val	Val	Phe	Pro	Tyr	Ala	Ala	Pro	Pro	Pro	Gln	
		65					70					75				
gaa	ccc	gtg	aag	act	ctg	aga	agc	ctg	gtc	aat	atc	cga	aag	gac	aca	289
Glu	Pro	Val	Lys	Thr	Leu	Arg	Ser	Leu	Val	Asn	Ile	Arg	Lys	Asp	Thr	
	80					85				90						
ctg	agg	ctc	gtc	aaa	tgt	gct	gag	gaa	gtg	aag	agc	cct	gga	gaa	gag	337
Leu	Arg	Leu	Val	Lys	Cys	Ala	Glu	Glu	Val	Lys	Ser	Pro	Gly	Glu	Glu	
95				100						105				110		
gcc	agt	aaa	gct	aaa	gtc	cac	tat	aat	gtt	gag	ttc	act	ttg	aca	cag	385
Ala	Ser	Lys	Ala	Lys	Val	His	Tyr	Asn	Val	Glu	Phe	Thr	Leu	Thr	Gln	
			115						120					125		
atg	cys	ggg	gta	gcc	atc	acc	atc	tat	tac	c						416
Met	Xaa	Gly	Val	Ala	Ile	Thr	Ile	Tyr	Tyr							
		130						135								

<210> 2059

<211> 342

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 114..341

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tcgagcacgc	tggtgggaaa	ggacccggga	cttgaacagt	ggtgtgcggc	gcc atg	116										
					Met											
					1											
cag	gtc	tcc	agc	ctc	aat	gag	gtg	aag	att	tac	agc	ctc	agc	tgc	ggc	164
Gln	Val	Ser	Ser	Leu	Asn	Glu	Val	Lys	Ile	Tyr	Ser	Leu	Ser	Cys	Gly	
		5						10					15			
aag	tcc	ctt	cct	gag	tgg	ctt	tct	gat	agg	aag	aag	aga	gcg	cta	cag	212
Lys	Ser	Leu	Pro	Glu	Trp	Leu	Ser	Asp	Arg	Lys	Lys	Arg	Ala	Leu	Gln	
		20						25				30				
aag	aan	gat	gta	gat	gtc	cgt	agg	aga	att	gaa	ctt	att	cag	gac	ttt	260

Lys	Xaa	Asp	Val	Asp	Val	Arg	Arg	Arg	Ile	Glu	Leu	Ile	Gln	Asp	Phe	
35						40				45						
gaa	atg	cct	act	gtg	tgt	acc	act	att	aag	gtg	tca	aaa	gat	gga	cag	308
Glu	Met	Pro	Thr	Val	Cys	Thr	Thr	Ile	Lys	Val	Ser	Lys	Asp	Gly	Gln	
50					55				60					65		
tac	att	tta	gca	act	gga	aca	tat	aaa	cct	cgg	g					342
Tyr	Ile	Leu	Ala	Thr	Gly	Thr	Tyr	Lys	Pro	Arg						
				70					75							

<210> 2060
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 <212> DNA
 <213> Homo sapiens

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										Met	Val	His	Pro	Arg	Ile		
										1					5		
ctc	tac	aga	gat	ggc	caa	gcg	ctg	ggg	tcg	tgg	ctg	cgt	cct	cta	ggc		104
Leu	Tyr	Arg	Asp	Gly	Gln	Ala	Leu	Gly	Ser	Trp	Leu	Arg	Pro	Leu	Gly		
			10					15					20				
cag	cct	tgt	gca	aag	gac	ctt	ctc	acc	aca	gat	cag	cca	gac	cat	ctt		152
Gln	Pro	Cys	Ala	Lys	Asp	Leu	Leu	Thr	Thr	Asp	Gln	Pro	Asp	His	Leu		
		25				30					35						
cct	cct	tcc	aag	tca	tca	aag	agt	tcc	aag	ctg	gtc	acc	tgt	ccc	ttg		200
Pro	Pro	Ser	Lys	Ser	Ser	Lys	Ser	Ser	Lys	Leu	Val	Thr	Cys	Pro	Leu		
		40				45				50							
atg	ttc	cca	gga	aac	cag	gaa	aga	gga	ccc	ctg	cat	ttt	atc	ttc	cca		248
Met	Phe	Pro	Gly	Asn	Gln	Glu	Arg	Gly	Pro	Leu	His	Phe	Ile	Phe	Pro		
55				60				65						70			
tcc	aga	gtg	gca	gga	tct	ctg	cct	ggg	aaa	cag	gct	tca	ttc	agc	aca		296
Ser	Arg	Val	Ala	Gly	Ser	Leu	Pro	Gly	Lys	Gln	Ala	Ser	Phe	Ser	Thr		
				75				80						85			
gct	gtg	gta	gca	tta	aca	aag	caa	agt	ggg	ca							328
Ala	Val	Val	Ala	Leu	Thr	Lys	Gln	Ser	Gly								
				90				95									

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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 111..437

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																	60

70	75	80	
gac aag gat gaa aag aag aag ggg gag gat gaa gac aaa ggt cct ccc			404
Asp Lys Asp Glu Lys Lys Lys Gly Glu Asp Glu Asp Lys Gly Pro Pro			
85	90	95	100
tgt ggc cca gtg aac tgc aat gaa aag atc gtg gtc ctt ctg cag cgc			452
Cys Gly Pro Val Asn Cys Asn Glu Lys Ile Val Val Leu Leu Gln Arg			
	105	110	115
ttg aag			458
Leu Lys			

<210> 2063
 <211> 370
 <212> DNA
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<220>
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atctagcccg ggaaccgagt tgcgggagtg cggctctgtc cgttccggcc aggagtttgc	120
cgactgcaga cgtcctgcga accggcaag atg tgc tct ctg ggg ttg ttc cct	173
	Met Cys Ser Leu Gly Leu Phe Pro
	1 5
cct cca ccg cct cgg ggt caa gtc acc cta tat gag cac aat aac gag	221
Pro Pro Pro Pro Arg Gly Gln Val Thr Leu Tyr Glu His Asn Asn Glu	
10 15 20	
ctg gtg acg ggc agt agc tat gag agc ccg ccc ccc gac ttc cgg ggc	269
Leu Val Thr Gly Ser Ser Tyr Glu Ser Pro Pro Pro Asp Phe Arg Gly	
25 30 35 40	
cag tgg atc aat ctt cct gtc cta caa ctg aca aag gat ccc cta aag	317
Gln Trp Ile Asn Leu Pro Val Leu Gln Leu Thr Lys Asp Pro Leu Lys	
45 50 55	
acc cct gga agg ctg gac cat ggc aca aga act gcc ttc atc cat cac	365
Thr Pro Gly Arg Leu Asp His Gly Thr Arg Thr Ala Phe Ile His His	
60 65 70	
ccg ga	370
Pro	

<210> 2064
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 <221> CDS
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ccggtcaaag g atg ctg agt ccg gag cgc cta gcc cta ccg gac tac gag	110

	Met	Leu	Ser	Pro	Glu	Arg	Leu	Ala	Leu	Pro	Asp	Tyr	Glu	
	1				5				10					
tat ctg gct cag cga cat gtc ctc acc tac atg gag gat gca gtg tgc														158
Tyr Leu Ala Gln Arg His Val Leu Thr Tyr Met Glu Asp Ala Val Cys														
15					20				25					
cag ctg cta gaa aac agg gaa gat att agc caa tat gga att gcc agg														206
Gln Leu Leu Glu Asn Arg Glu Asp Ile Ser Gln Tyr Gly Ile Ala Arg														
30					35				40				45	
ttc ttc act gaa tat ttt aaa gtg tat gcc agg gaa														242
Phe Phe Thr Glu Tyr Phe Lys Val Tyr Ala Arg Glu														
	50								55					

<210> 2065

<211> 356

<212> DNA

<213> Homo sapiens

<220>

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<222> 30..356

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						1				5					
ctc cag aag ttc caa cag gat gga ttc ctg gtg ctg gaa gga ttc ttg															101
Leu Gln Lys Phe Gln Gln Asp Gly Phe Leu Val Leu Glu Gly Phe Leu															
10					15				20						
tct gcg gaa gag tgt gtg gcc atg caa caa agg att ggc gag ata gtg															149
Ser Ala Glu Glu Cys Val Ala Met Gln Gln Arg Ile Gly Glu Ile Val															
25					30				35				40		
gct gaa atg gat gtt cct ctc cac tgc cgc aca gaa ttc tcc acc cag															197
Ala Glu Met Asp Val Pro Leu His Cys Arg Thr Glu Phe Ser Thr Gln															
					45				50				55		
gaa gag gag cag ctt cga gcc cag ggc agc aca gac tat ttc ttg agc															245
Glu Glu Glu Gln Leu Arg Ala Gln Gly Ser Thr Asp Tyr Phe Leu Ser															
					60				65				70		
agt ggt gac aag att cga ttc ttc ttt gag aaa ggc gtt ttt gat gag															293
Ser Gly Asp Lys Ile Arg Phe Phe Phe Glu Lys Gly Val Phe Asp Glu															
					75				80				85		
aaa gga aat ttc ctg gtc cct ccg gag aaa tcc atc ans aaa att ggc															341
Lys Gly Asn Phe Leu Val Pro Pro Glu Lys Ser Ile Xaa Lys Ile Gly															
					90				95				100		
cac gct ctg cac gcc															356
His Ala Leu His Ala															
105															

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<221> CDS
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 ggaag atg atg acg ata gtg act atg gca gtt .cga aaa aga aaa ack aaa 110
 Met Met Thr Ile Val Thr Met Ala Val Arg Lys Arg Lys Thr Lys
 1 5 10 15
 aga tgg tta agr agg tca aaa cct gaa aga aaa gaa aag aaa atg ccc 158
 Arg Trp Leu Arg Arg Ser Lys Pro Glu Arg Lys Glu Lys Lys Met Pro
 20 25 30
 aaa ccc aga cta aag gct aca gtg acg cca agt cca gtg aaa ggc aaa 206
 Lys Pro Arg Leu Lys Ala Thr Val Thr Pro Ser Pro Val Lys Gly Lys
 35 40 45
 ggg aaa gtg ggt cgc ccc aca gct tca aag gca tca aag gaa aga ctc 254
 Gly Lys Val Gly Arg Pro Thr Ala Ser Lys Ala Ser Lys Glu Arg Leu
 50 55 60
 ctt ctc cca aag aag aag atg agg aac cgg aaa gcc cgc ca 295
 Leu Leu Pro Lys Lys Lys Met Arg Asn Arg Lys Ala Arg
 65 70 75

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 Met Ser Glu Leu Xaa Gly Glu Thr Gly Thr Ser Phe Pro Phe Ser Val
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 tca gga tcg cag aaa gta tgt ccc ttc tct cac cat gag ctg gct ctc 97
 Ser Gly Ser Gln Lys Val Cys Pro Phe Ser His His Glu Leu Ala Leu
 20 25 30
 cag ttc cca ggg agt ggt act aac agc cta cca ccc cag cgg caa gga 145
 Gln Phe Pro Gly Ser Gly Thr Asn Ser Leu Pro Pro Gln Arg Gln Gly
 35 40 45
 cca ggc cgt cgg gaa cag cca tgc aaa ggc agg gga gga agc cac ctc 193
 Pro Gly Arg Arg Glu Gln Pro Cys Lys Gly Arg Gly Gly Ser His Leu
 50 55 60
 gag tcg cag ata tgg cag tac act atg aac cag 226
 Glu Ser Gln Ile Trp Gln Tyr Thr Met Asn Gln
 65 70 75

<210> 2068
 <211> 409
 <212> DNA
 <213> Homo sapiens

001220" 666E7560

<220>
 <221> CDS
 <222> 127..408

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 gaatttgtaa aggccagaga actacctacg attctctcag cggctctctt tctcctcaag 120
 tttgar atg ctt tat ctc atc ggg ttg ggc ctg gga gat gcc aag gac 168
 Met Leu Tyr Leu Ile Gly Leu Gly Leu Gly Asp Ala Lys Asp
 1 5 10
 atc aca gtc aag ggc ctg gaa gtt gtt aga cgc tgc agt cga gtg tat 216
 Ile Thr Val Lys Gly Leu Glu Val Val Arg Arg Cys Ser Arg Val Tyr
 15 20 25 30
 ctg gaa gcc tac acc tca gtc cta act gta ggg aag saa gcc ttg gaa 264
 Leu Glu Ala Tyr Thr Ser Val Leu Thr Val Gly Lys Xaa Ala Leu Glu
 35 40 45
 gag ttt tat gga aga aaa ttg gtt gtt gct gat aga gaa gaa gtg gaa 312
 Glu Phe Tyr Gly Arg Lys Leu Val Val Ala Asp Arg Glu Glu Val Glu
 50 55 60
 caa gaa gca gat aat att tta aag gat gct gat atc agt gat gtt gca 360
 Gln Glu Ala Asp Asn Ile Leu Lys Asp Ala Asp Ile Ser Asp Val Ala
 65 70 75
 ttc ctt gtg gtt ggt gat cca ttt ggg gcc aca aca cac agt gat ctt g 409
 Phe Leu Val Val Gly Asp Pro Phe Gly Ala Thr Thr His Ser Asp Leu
 80 85 90

<210> 2069
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
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 gaatttgtaa aggccagaga actacctacg attctctcag cgggtaattg gctgctccta 120
 gtctctcttc tcctcaagtt tgaa atg ctt tat ctc atc ggg ttg ggc ctg 171
 Met Leu Tyr Leu Ile Gly Leu Gly Leu
 1 5
 gga gat gcc aag gac atc aca gtc aag ggc ctg gaa gtt gtt aga cgc 219
 Gly Asp Ala Lys Asp Ile Thr Val Lys Gly Leu Glu Val Val Arg Arg
 10 15 20 25
 tgc agt cga gtg tat ctg gaa gcc tac acc tca gtc cta act gta ggg 267
 Cys Ser Arg Val Tyr Leu Glu Ala Tyr Thr Ser Val Leu Thr Val Gly
 30 35 40
 aag saa gcc ttg gaa gag ttt tat gga aga aaa ttg gtt gtt gct gat 315
 Lys Xaa Ala Leu Glu Glu Phe Tyr Gly Arg Lys Leu Val Val Ala Asp
 45 50 55
 aga gaa gaa gtg gaa caa gaa gca gat aat att tta aag gat gct gat 363
 Arg Glu Glu Val Glu Gln Glu Ala Asp Asn Ile Leu Lys Asp Ala Asp

60	65	70	
atc agt gat gtt gca ttc ctt gtg gtt ggt gat cca ttt ggg gcc aca			411
Ile Ser Asp Val Ala Phe Leu Val Val Gly Asp Pro Phe Gly Ala Thr			
75	80	85	
aca cac agt gat ctt g			427
Thr His Ser Asp Leu			
90			

<210> 2070
 <211> 320
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 68..319

<400> 2070	
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gttgaga atg gag aga atg tta cct ctc ctg act ctg ggg gcc caw aat	109
Met Glu Arg Met Leu Pro Leu Leu Thr Leu Gly Ala Xaa Asn	
1 5 10	
acc amc ctg mma gag awt cct caa aag gcc tca agt tca acc tca cgg	157
Thr Xaa Leu Xaa Glu Xaa Pro Gln Lys Ala Ser Ser Ser Thr Ser Arg	
15 20 25 30	
aga ctt ctg agg cag aaa ttc acc aga gct tcc agc acc tcc tgc gca	205
Arg Leu Leu Arg Gln Lys Phe Thr Arg Ala Ser Ser Thr Ser Cys Ala	
35 40 45	
ccc tca atc agt cca gcg atg aag ctg cag ctg rgt atg gga aaa tgc	253
Pro Ser Ile Ser Pro Ala Met Lys Leu Gln Leu Xaa Met Gly Lys Cys	
50 55 60	
cat gwy tgt yna aga gca act cag tct gct gga cag gtt cac gga gga	301
His Xaa Cys Xaa Arg Ala Thr Gln Ser Ala Gly Gln Val His Gly Gly	
65 70 75	
tgc caa gag gct gta tgg c	320
Cys Gln Glu Ala Val Trp	
80	

<210> 2071
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 54..254

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Met	
1	
gac ggt cgg gtg cag ctg ata aag gcc ctc ctg gcc ttg ccg atc cgg	104

004220"666E560

Asp Gly Arg Val Gln Leu Ile Lys Ala Leu Leu Ala Leu Pro Ile Arg	
5 10 15	
cct gcg acg cgt cgc tgg agg aac ccg att ccc ttt ccc gag acg ttt	152
Pro Ala Thr Arg Arg Trp Arg Asn Pro Ile Pro Phe Pro Glu Thr Phe	
20 25 30	
gac ggc gat acc gac cga ctc ccg gag ttc atc gtg cag acg ggc tcc	200
Asp Gly Asp Thr Asp Arg Leu Pro Glu Phe Ile Val Gln Thr Gly Ser	
35 40 45	
tac atg ttc gtg gac gag aac acg ttc tyc agc gag acc tat ttc ctc	248
Tyr Met Phe Val Asp Glu Asn Thr Phe Xaa Ser Glu Thr Tyr Phe Leu	
50 55 60 65	
ccc acc	254
Pro Thr	

<210> 2072
 <211> 227
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 30..227

<400> 2072	
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Met Xaa Gly Arg Val Gln Leu Met	
1 5	
aag gcc ctc ctg gcy sgg ccc ctc cgg ccc gcg gcg cgt cgc tgg agg	101
Lys Ala Leu Leu Ala Xaa Pro Leu Arg Pro Ala Ala Arg Arg Trp Arg	
10 15 20	
aac ccg att ccc ttt ccc gag acg ttt gat ggc gat acc gac cgg ctc	149
Asn Pro Ile Pro Phe Pro Glu Thr Phe Asp Gly Asp Thr Asp Arg Leu	
25 30 35 40	
ccg gag ttc atc gtg cag acg agc tcc tac atg ttc gtg gac gag aac	197
Pro Glu Phe Ile Val Gln Thr Ser Ser Tyr Met Phe Val Asp Glu Asn	
45 50 55	
acg ttc tcc aac gac gcc ctg aag gtg acg	227
Thr Phe Ser Asn Asp Ala Leu Lys Val Thr	
60 65	

<210> 2073
 <211> 453
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 82..453

<400> 2073	
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gccactggg ccttgcccga g atg gac agc cgg att cct tat gat gac tac	111

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<210> 2075
 <211> 793
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 68..793

<400> 2075
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 cgctcgcc atg ggc cgt gtg atc cgt gga cag agg aag ggc gcc ggg tct 109
 Met Gly Arg Val Ile Arg Gly Gln Arg Lys Gly Ala Gly Ser
 1 5 10
 gtg ttc cgc gcg cac gtg aag cac cgt aaa ggc gct gcg cgc ntg cgc 157
 Val Phe Arg Ala His Val Lys His Arg Lys Gly Ala Ala Arg Xaa Arg
 15 20 25 30
 gcc gtg gat ttc gct gag cgg cac ggc tac atc aag ggc atc gtc aag 205
 Ala Val Asp Phe Ala Glu Arg His Gly Tyr Ile Lys Gly Ile Val Lys
 35 40 45
 gac atc atc cac gac ccg ggc cgc ggc gcg ccc ctc gcc aag gtg gtc 253
 Asp Ile Ile His Asp Pro Gly Arg Gly Ala Pro Leu Ala Lys Val Val
 50 55 60
 ttc cgg gat ccg tat cgg ttt aag aag cgg acg gag ctg ttc att gcc 301
 Phe Arg Asp Pro Tyr Arg Phe Lys Lys Arg Thr Glu Leu Phe Ile Ala
 65 70 75
 gcc gag ggc att cac acg ggc cag ttt gtg tat tgc ggc aag aag gcc 349
 Ala Glu Gly Ile His Thr Gly Gln Phe Val Tyr Cys Gly Lys Lys Ala
 80 85 90
 cag ctc aac att ggc aat gtg ctc cct gtg ggc acc atg cct gag ggt 397
 Gln Leu Asn Ile Gly Asn Val Leu Pro Val Gly Thr Met Pro Glu Gly
 95 100 105 110
 aca atc gtg tgc tgc ctg gag gag aag cct gga gac cgt ggc aag ctg 445
 Thr Ile Val Cys Cys Leu Glu Glu Lys Pro Gly Asp Arg Gly Lys Leu
 115 120 125
 gcc cgg gca tca ggg aac tat gcc acc gtt atc tcc cac aac cct gag 493
 Ala Arg Ala Ser Gly Asn Tyr Ala Thr Val Ile Ser His Asn Pro Glu
 130 135 140
 acc aag aag acc cgt gtg aag ctg ccc tcc ggc tcc aag aag gtt atc 541
 Thr Lys Lys Thr Arg Val Lys Leu Pro Ser Gly Ser Lys Lys Val Ile
 145 150 155
 tcc tca gcc aac aga gct ctg gtt ggt gtg gtg gct gga ggt ggc cga 589
 Ser Ser Ala Asn Arg Ala Leu Val Gly Val Val Ala Gly Gly Gly Arg
 160 165 170
 att gac aaa ccc atc ttg aag gct ggc cgg gcg tac cac aaa tat aag 637
 Ile Asp Lys Pro Ile Leu Lys Ala Gly Arg Ala Tyr His Lys Tyr Lys
 175 180 185 190
 gca aag agg aac tgc tgg cca cga gta cgg ggt gtg gcc atg aat cct 685
 Ala Lys Arg Asn Cys Trp Pro Arg Val Arg Gly Val Ala Met Asn Pro
 195 200 205
 gtg gca gca tcc ttt tgg agg tgg caa cca cca gca cat cgg caa gcc 733
 Val Ala Ala Ser Phe Trp Arg Trp Gln Pro Pro Ala His Arg Gln Ala
 210 215 220

ctc cac cat ccg cag aga tgc ccc tgc tgg ccg caa agt ggg tct cat	781
Leu His His Pro Gln Arg Cys Pro Cys Trp Pro Gln Ser Gly Ser His	
225 230 235	
tgc tgc ccg cyg	793
Cys Cys Pro Xaa	
240	

<210> 2076
 <211> 721
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 68..721

<400> 2076	
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cgtcgcc atg ggc cgt gtg atc cgt gga cag agg aag ggc gcc ggg tct	109
Met Gly Arg Val Ile Arg Gly Gln Arg Lys Gly Ala Gly Ser	
1 5 10	
gtg ttc cgc gcg cac gtg aag cac cgt aaa ggc gct gcg cgc ntg cgc	157
Val Phe Arg Ala His Val Lys His Arg Lys Gly Ala Ala Arg Xaa Arg	
15 20 25 30	
gcc gtg gat ttc gct gag cgg cac ggc tac atc aag ggc atc gtc aag	205
Ala Val Asp Phe Ala Glu Arg His Gly Tyr Ile Lys Gly Ile Val Lys	
35 40 45	
gac atc atc cac gac ccg ggc cgc ggc gcg ccc ctc gmm aag gtg gtc	253
Asp Ile Ile His Asp Pro Gly Arg Gly Ala Pro Leu Xaa Lys Val Val	
50 55 60	
ttc cgg gat ccg tat cgg ttt aag aag cgg acg gag ctg ttc att gcc	301
Phe Arg Asp Pro Tyr Arg Phe Lys Lys Arg Thr Glu Leu Phe Ile Ala	
65 70 75	
gcc gag ggc acc atg cct nag ggt aca atc gtg tgc tgc ctg gag gas	349
Ala Glu Gly Thr Met Pro Xaa Gly Thr Ile Val Cys Cys Leu Glu Xaa	
80 85 90	
aag cct gga gac cgt ggc aag ctg gcc cgg gca tca ggg aac tat gcc	397
Lys Pro Gly Asp Arg Gly Lys Leu Ala Arg Ala Ser Gly Asn Tyr Ala	
95 100 105 110	
acc gtt atc tcc cac aac cct gag acc aag aag acc cgt gtg aag ctg	445
Thr Val Ile Ser His Asn Pro Glu Thr Lys Lys Thr Arg Val Lys Leu	
115 120 125	
ccc tcc ggc tcc aag aag gtt atc tcc tca gcc aac aga gct ctg gtt	493
Pro Ser Gly Ser Lys Lys Val Ile Ser Ser Ala Asn Arg Ala Leu Val	
130 135 140	
ggt gtg gtg gct gga ggt ggc cga att gac aaa ccc atc ttg aag gct	541
Gly Val Val Ala Gly Gly Gly Arg Ile Asp Lys Pro Ile Leu Lys Ala	
145 150 155	
ggc cgg gcg tac cac aaa tat aag gca aag agg aac tgc tgg cca cga	589
Gly Arg Ala Tyr His Lys Tyr Lys Ala Lys Arg Asn Cys Trp Pro Arg	
160 165 170	
gta cgg ggt gtg gcc atg aat cct gtg gca gca tcc ttt tgg agg tgg	637
Val Arg Gly Val Ala Met Asn Pro Val Ala Ala Ser Phe Trp Arg Trp	

175	180	185	190	
caa cca cca gca cat cgg caa gcc ctc cac cat ccg cag aga tgc ccc				685
Gln Pro Pro Ala His Arg Gln Ala Leu His His Pro Gln Arg Cys Pro				
	195	200	205	
tgc tgg ccg caa agt ggg tct cat tgc tgc ccg cyg				721
Cys Trp Pro Gln Ser Gly Ser His Cys Cys Pro Xaa				
	210	215		

<210> 2077
 <211> 389
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 125..388

<400> 2077	
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agggctggta gcagcgacaga ggaaaggcgg cttttagcca ggtatttcag tgtctgtaga	120
caag atg gaa tca tct cca ttt aat aga cgg caa tgg acc tca cta tca	169
Met Glu Ser Ser Pro Phe Asn Arg Arg Gln Trp Thr Ser Leu Ser	
1 5 10 15	
ttg agg gta aca gcc aaa gaa ctt tct ctt gtc aac aag aac aag tca	217
Leu Arg Val Thr Ala Lys Glu Leu Ser Leu Val Asn Lys Asn Lys Ser	
20 25 30	
tcg gct att gtg gaa ata ttc tcc aag tac cag aaa gca gct gaa gaa	265
Ser Ala Ile Val Glu Ile Phe Ser Lys Tyr Gln Lys Ala Ala Glu Glu	
35 40 45	
aca aac atg gag aag aag aga agt aac acc gaa aat ctc tcc cag cac	313
Thr Asn Met Glu Lys Lys Arg Ser Asn Thr Glu Asn Leu Ser Gln His	
50 55 60	
ttt aga aag ggg rcc ctg act gtg tta aag aag aag tgg gag aac cag	361
Phe Arg Lys Gly Xaa Leu Thr Val Leu Lys Lys Lys Trp Glu Asn Gln	
65 70 75	
ggc tgg gag cag agt ctc aca cag act c	389
Gly Trp Glu Gln Ser Leu Thr Gln Thr	
80 85	

<210> 2078
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 117..299

<400> 2078	
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gaggagctgc ccagagcacc gctcacactc ccagagtacc tgaagtcggc atttca atg	119
	Met

aca ggt gcc ccg cac cgt cct ctg gct gac cat cga gct agc cat tgt	1	167
Thr Gly Ala Pro His Arg Pro Leu Ala Asp His Arg Ala Ser His Cys		
5 10 15		
ggg ctc cga cat gca gga agt cat cgg cac ggc cat tgc att caa tct	215	
Gly Leu Arg His Ala Gly Ser His Arg His Gly His Cys Ile Gln Ser		
20 25 30		
gct ctc agc tgg acg gta cca ccc cag tgt acc cca act ctt cag gcc	263	
Ala Leu Ser Trp Thr Val Pro Pro Gln Cys Thr Pro Thr Leu Gln Ala		
35 40 45		
agg cag aga aca gct gct gct act tcc ccc cct aac ca	301	
Arg Gln Arg Thr Ala Ala Thr Ser Pro Pro Asn		
50 55 60		

<210> 2079
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 228..458

<400> 2079	
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tggyaatttc tgaaccacgc cggtccatc tcagcttctg gtttctaagt ccatgtgcca	120
aargctgcca ggaaggagac gccttctga gtccctggatc tttcttcctt ctggaaatct	180
ttgactgtgg gtatgttattt atttctgaat aagagcgtcc acgcatc atg gac ctc	236
Met Asp Leu	
1	
gcg gga ctg ctg aag tct cag ttc ctg tgc cac ctg gtc ttc tgc tac	284
Ala Gly Leu Leu Lys Ser Gln Phe Leu Cys His Leu Val Phe Cys Tyr	
5 10 15	
gtc ttt att gcc tca ggg cta atc atc aas acc att cag ctc ttc act	332
Val Phe Ile Ala Ser Gly Leu Ile Ile Xaa Thr Ile Gln Leu Phe Thr	
20 25 30 35	
ctc ctc ctc tgg ccc att aac aag cag ctc ttc cgg aag atc aac tgc	380
Leu Leu Leu Trp Pro Ile Asn Lys Gln Leu Phe Arg Lys Ile Asn Cys	
40 45 50	
aga ctg tcc tat tgc atc tca agc cag ctg gtg atg ctg ctg gag tgg	428
Arg Leu Ser Tyr Cys Ile Ser Ser Gln Leu Val Met Leu Leu Glu Trp	
55 60 65	
tgg tcg ggc acg gaa tgc acc atc ttc acg	458
Trp Ser Gly Thr Glu Cys Thr Ile Phe Thr	
70 75	

<210> 2080
 <211> 363
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 153..362

<400> 2080

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tttctttaca cacattatgg ctgtaaatac ctggctcctg ccagcagctg agctgggtag      60
cctctctgag ctggtttctt gccccaaagg ctggcttcca ccatccaggt gcaccactga    120
agtgaggaca caccggagcc aggcgcctgc tc atg ttg aag tgc gct gtt cac      173
                               Met Leu Lys Cys Ala Val His
                               1           5

acc cgc tcc gga gag cac ccc agc agc atc cag aag cag ctg cag tgt      221
Thr Arg Ser Gly Glu His Pro Ser Ser Ile Gln Lys Gln Leu Gln Cys
          10           15           20

tgc tgc cac cac cct cct gtc tgc ctc ttc aaa gtc tcc tgt gac att      269
Cys Cys His His Pro Pro Val Cys Leu Phe Lys Val Ser Cys Asp Ile
          25           30           35

ttt tct ttg gtc aga agc cag gaa ctg gtg tca ttc ctt aaa aga tac      317
Phe Ser Leu Val Arg Ser Gln Glu Leu Val Ser Phe Leu Lys Arg Tyr
          40           45           50           55

gtg ccg ggg cca ggt gtg gtg gct cac gcc tgt aat ccc agc act t      363
Val Pro Gly Pro Gly Val Val Ala His Ala Cys Asn Pro Ser Thr
          60           65           70
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<210> 2081

<211> 372

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 109..372

<400> 2081

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tgccctcaggc atctccgcga tctcctctcc cctccaatcc tatccgtg atg gac gat      117
                               Met Asp Asp
                               1

gcc cac gag tcg ccc tcc gac aaa ggt gga gag aca ggg gag tcg gat      165
Ala His Glu Ser Pro Ser Asp Lys Gly Gly Glu Thr Gly Glu Ser Asp
          5           10           15

gag acg gcc gct gtg ccc ggg gac ccg ggg gct acc gac acc gat gga      213
Glu Thr Ala Ala Val Pro Gly Asp Pro Gly Ala Thr Asp Thr Asp Gly
          20           25           30           35

atc cca gag gaa act gac gga gac gca gat gtg gac ttg aaa gaa gct      261
Ile Pro Glu Glu Thr Asp Gly Asp Ala Asp Val Asp Leu Lys Glu Ala
          40           45           50

gca gcg gag gaa ggc gag ctc gag agt sag gwt gtc tca gat tta aca      309
Ala Ala Glu Glu Gly Glu Leu Glu Ser Xaa Xaa Val Ser Asp Leu Thr
          55           60           65

aca gtt gaa agg gaa gac tca tca tta ctt aat cct gca gcc aaa aaa      357
Thr Val Glu Arg Glu Asp Ser Ser Leu Leu Asn Pro Ala Ala Lys Lys
          70           75           80

act gaa aat aga tac      372
Thr Glu Asn Arg Tyr
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85

<210> 2082
<211> 234
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 15..233

<400> 2082
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Met Glu Ala Gln Thr Thr Leu Thr Thr Asn Asp Ile
1 5 10
gtc att agc aag ctg acc cag atc ctt tca tac ctg agg cag gga acc 98
Val Ile Ser Lys Leu Thr Gln Ile Leu Ser Tyr Leu Arg Gln Gly Thr
15 20 25
cgt aac aag aag ctt aag aag aag gat aaa ggg aag ctg gaa gag aag 146
Arg Asn Lys Lys Leu Lys Lys Lys Asp Lys Gly Lys Leu Glu Glu Lys
30 35 40
aaa cct cct gag gct gac atg aat att ttt gaa gac att ggg gat tac 194
Lys Pro Pro Glu Ala Asp Met Asn Ile Phe Glu Asp Ile Gly Asp Tyr
45 50 55 60
gta ccc tcc aca acc aag aca cct cgg gac aag gag cgg g 234
Val Pro Ser Thr Thr Lys Thr Pro Arg Asp Lys Glu Arg
65 70

<210> 2083
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 186..368

<400> 2083
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aggaggagtc tgcgtaatgt gcgtgtgaag agactggggg agctggccgg ggctcacggt 120
gtttgaccg tcggtcgtgc gtgagaggaa agggaaggag gaggtcccga atagcggtcg 180
ccgaa atg ttc cgg tgt gga ggc ctg gcg ggt gct tkg aag cag aag 230
Met Phe Arg Cys Gly Gly Leu Ala Ala Gly Ala Xaa Lys Gln Lys
1 5 10 15
ctg gtg ccc ttg gtg cgg acc gtg tgc gtc cga agc ccg akc nag agg 278
Leu Val Pro Leu Val Arg Thr Val Cys Val Arg Ser Pro Xaa Xaa Arg
20 25 30
aac cgg ctc cca ggc aac ttg ttc cag cga tgg cat gtk cct cta gaa 326
Asn Arg Leu Pro Gly Asn Leu Phe Gln Arg Trp His Val Pro Leu Glu
35 40 45
ctc cag atg aca aga caa atg gct agc tct ggt gca tca ggg 368
Leu Gln Met Thr Arg Gln Met Ala Ser Ser Gly Ala Ser Gly

50

55

60

<210> 2084
 <211> 624
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 307..624

<400> 2084
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 gggaaggagg atggcggata tcatcgcaag actccgggag gacggatcca aaaacgtgtg 180
 atacaggaag gccgaggaga gctcccggac tttcaagatg ggaccaaggc cacgttccac 240
 taccggacgc tgcacagtga cgacgagggc accgtgctgg acgacagccg ggctcgtggc 300
 aagccc atg gag ctc atc att ggc aag aag ttc aag ctg cct gtg tgg 348
 Met Glu Leu Ile Ile Gly Lys Lys Phe Lys Leu Pro Val Trp
 1 5 10
 gag acc atc gtg tgc acc atg cga gaa ggg gag att gcc cag ttc ctc 396
 Glu Thr Ile Val Cys Thr Met Arg Glu Gly Glu Ile Ala Gln Phe Leu
 15 20 25 30
 tgt gac atc aag cat gtg gtc ctg tac ccg ctg gtg gcc aag agt ctc 444
 Cys Asp Ile Lys His Val Val Leu Tyr Pro Leu Val Ala Lys Ser Leu
 35 40 45
 cgc aac atc gcg gtg ggc aag gac ccc ctg gag ggc cag cgg cac tgc 492
 Arg Asn Ile Ala Val Gly Lys Asp Pro Leu Glu Gly Gln Arg His Cys
 50 55 60
 tgc ggt gtt gca cag atg cgt gaa cac agc tcc ctg ggc cat gct gac 540
 Cys Gly Val Ala Gln Met Arg Glu His Ser Ser Leu Gly His Ala Asp
 65 70 75
 ctg gac gcc ctg cag cag aac ccc cag ccc ctc atc ttc cac atg gag 588
 Leu Asp Ala Leu Gln Gln Asn Pro Gln Pro Leu Ile Phe His Met Glu
 80 85 90
 atg ctg aag gtg gag agc cct ggc acg tac cag cag 624
 Met Leu Lys Val Glu Ser Pro Gly Thr Tyr Gln Gln
 95 100 105

<210> 2085
 <211> 466
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 126..464

<400> 2085
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 tattgcgtac gcccaaggcg ctgggcctgg agcaggagaaa agggagtgga ggcgcgtcgg 120
 agact atg aag cgc ggc att cgg cgg gat cct ttc cgg aag cgg aag ctc 170

Met	Lys	Arg	Gly	Ile	Arg	Arg	Asp	Pro	Phe	Arg	Lys	Arg	Lys	Leu	
1			5					10					15		
ggc	ggg	cgg	gcc	aag	aag	gtc	cgg	gag	ccc	acg	gcg	gtt	aat	tct	ttt
Gly	Gly	Arg	Ala	Lys	Lys	Val	Arg	Glu	Pro	Thr	Ala	Val	Asn	Ser	Phe
			20					25					30		
tac	cgt	gag	gct	tca	ctt	ccc	tcg	gtc	tgg	gct	tct	ctg	agg	cgg	cga
Tyr	Arg	Glu	Ala	Ser	Leu	Pro	Ser	Val	Trp	Ala	Ser	Leu	Arg	Arg	Arg
			35					40					45		
gag	atg	gtc	agg	tct	gga	gct	cga	ccg	ggc	cag	gtg	agg	gct	gag	gac
Glu	Met	Val	Arg	Ser	Gly	Ala	Arg	Pro	Gly	Gln	Val	Arg	Ala	Glu	Asp
		50						55				60			
ctg	agg	agt	ccg	cng	tgg	gga	tgg	aga	ggg	aca	ggg	ggg	ttt	tcg	ggc
Leu	Arg	Ser	Pro	Xaa	Trp	Gly	Trp	Arg	Gly	Thr	Gly	Gly	Phe	Ser	Gly
		65				70				75					
cag	gaa	ctt	gta	aaa	ctc	tgc	tcg	aaa	aaa	gac	aaa	gac	aat	gcg	gcg
Gln	Glu	Leu	Val	Lys	Leu	Cys	Ser	Lys	Lys	Asp	Lys	Asp	Asn	Ala	Ala
80					85				90				95		
aca	tta	aag	tgc	tgg	gac	aga	ggg	gca	ggg	aac	act	aat	ctt	ccc	gtc
Thr	Leu	Lys	Cys	Trp	Asp	Arg	Gly	Ala	Gly	Asn	Thr	Asn	Leu	Pro	Val
			100					105					110		
gta	aca	cg													
Val	Thr														

<210> 2086
 <211> 250
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 84..248

<400>	2086	
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agccgagaag	tgggtcaagct	aga atg gga ccc cag gtt tgc gct ccc tac tct
		Met Gly Pro Gln Val Cys Ala Pro Tyr Ser
		1 5 10
cca	ccg	ata acc tat caa agg gct ttg caa gag ctt ttg act aat cgt
Pro	Pro	Ile Thr Tyr Gln Arg Ala Leu Gln Glu Leu Leu Thr Asn Arg
		15 20 25
ctg	tna	atg gtt ctt cat tca cgt att aat tgc aca tca gta tgt gcc
Leu	Xaa	Met Val Leu His Ser Arg Ile Asn Cys Thr Ser Val Cys Ala
		30 35 40
aaa	tct	act aga cat tgg aga aac agt agg aac aac aca tg
Lys	Ser	Thr Arg His Trp Arg Asn Ser Arg Asn Asn Thr
		45 50 55

<210> 2087
 <211> 444
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 72..443

<400> 2087
ctaagtgttt ccggtggatt cccagggact gtcggaggtg tggactctgc ctgcctacct 60
ggtctgggaa g atg ttc tac cat atc tcc cta gag cac gaa atc ctg ctg 110
Met Phe Tyr His Ile Ser Leu Glu His Glu Ile Leu Leu
1 5 10
cac ccg cgc tac ttc ggc ccc aac ttg ctc aac acg gtg aag cag aag 158
His Pro Arg Tyr Phe Gly Pro Asn Leu Leu Asn Thr Val Lys Gln Lys
15 20 25
ctc ttc acc gag gtg gag ggg acc tgc aca ggg aag tat ggc ttt gta 206
Leu Phe Thr Glu Val Glu Gly Thr Cys Thr Gly Lys Tyr Gly Phe Val
30 35 40 45
att gct gtc acc acc att gac aat att ggt gct ggt gtg atc cag cca 254
Ile Ala Val Thr Thr Ile Asp Asn Ile Gly Ala Gly Val Ile Gln Pro
50 55 60
ggc cga ggc ttt gtc ctt tat cca gtt aag tac aag gcc att gtt ttc 302
Gly Arg Gly Phe Val Leu Tyr Pro Val Lys Tyr Lys Ala Ile Val Phe
65 70 75
cgg cca ttt aaa ggg gag gtc gtg gat gct gtt gtc act cag gtc aac 350
Arg Pro Phe Lys Gly Glu Val Val Asp Ala Val Val Thr Gln Val Asn
80 85 90
aag gtt gga ctc ttc aca gaa att ggg ccc atg tct tgc ttc atc tct 398
Lys Val Gly Leu Phe Thr Glu Ile Gly Pro Met Ser Cys Phe Ile Ser
95 100 105
cga cat tcc atc cct tca gag agg agt ttg atc cta act cca acc c 444
Arg His Ser Ile Pro Ser Glu Arg Ser Leu Ile Leu Thr Pro Thr
110 115 120

<210> 2088
<211> 367
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 189..365

<400> 2088
cgcgccggaa gtggaagacc aggcagccca gctgaaggca gtaagctcgg ctcacagtcg 60
caggagagtt ctgggtaca cgggcaaagg ggcttgagaa ggcccggagg cgaancgcaa 120
gagaagcaac tgtgccccg agaagagaag ctgcgccatt ccagactggg aaccagcttt 180
cagtgaag atg gca ggg cca gaa ctg ttg ctc gac tcc aac atc cgc ctc 230
Met Ala Gly Pro Glu Leu Leu Leu Asp Ser Asn Ile Arg Leu
1 5 10
tgg gtg gtc cta ccc atc gtt atc atc act ttc ttc gta ggc atg atc 278
Trp Val Val Leu Pro Ile Val Ile Ile Thr Phe Phe Val Gly Met Ile
15 20 25 30
cgc cac tac gtg tcc atc ctg ctg cag agc gac aag aag ctc acc cag 326
Arg His Tyr Val Ser Ile Leu Leu Gln Ser Asp Lys Lys Leu Thr Gln
35 40 45

gaa caa gta tct gac agt caa gtc cta att cga agc aga gt
 Glu Gln Val Ser Asp Ser Gln Val Leu Ile Arg Ser Arg
 50 55

367

<210> 2089
 <211> 568
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 412..567

<400> 2089
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 tatcttgga tctaggggca ctccaggctc tgggctcaga cggctggctt ctgcctaccc 120
 gagccttaac ctttcaagga ccagaaggat tccagagctc ttgccctagg tccctggggca 180
 gcgatgactc actgcagcac cccctcccac ttcgccaagc tgccgtctcc gcccaccccc 240
 aaacaatctc gacagcgcat ttcgggagcc acggctccgg gcgctttgct ggggggctaaa 300
 ggggtttatc cctttccttg aatcccagca ggctagaact accccctccc agtcttcagg 360
 ctttgcnacg ctctccaccc gatccttcca ttgaaaggca gagaaggaag g atg tgc 417
 Met Cys
 1
 ttg gga act tta aga ccc acg aac gac agc gca ctg atg gag cag ccc 465
 Leu Gly Thr Leu Arg Pro Thr Asn Asp Ser Ala Leu Met Glu Gln Pro
 5 10 15
 agt gtc tgg ggc aaa gtc ctc gag gtt cat tca ttc agg aag cct ctg 513
 Ser Val Trp Gly Lys Val Leu Glu Val His Ser Phe Arg Lys Pro Leu
 20 25 30
 acc agc ctt tac cat gcg ctg agt gag aag ctg agg ata agg aaa gag 561
 Thr Ser Leu Tyr His Ala Leu Ser Glu Lys Leu Arg Ile Arg Lys Glu
 35 40 45 50
 caa gac c 568
 Gln Asp

<210> 2090
 <211> 502
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 97..501

<400> 2090
 agacgcctcg ctcaatttct cacagggctg cgcaggtttc ccccgctctgc gaatggacca 60
 ctggaggggt tcaaagggtc gcgtccagc acggga atg agc ctc ttt gat ctc 114
 Met Ser Leu Phe Asp Leu
 1 5
 ttc cgg ggc ttt ttc ggc ttt cct gga cct cgg agc cac aga gat ccc 162
 Phe Arg Gly Phe Phe Gly Phe Pro Gly Pro Arg Ser His Arg Asp Pro
 10 15 20

004220.656760

ttt ttt gga ggg atg act cga gat gaa gat gat gat gag gaa gaa gaa	210
Phe Phe Gly Gly Met Thr Arg Asp Glu Asp Asp Asp Glu Glu Glu Glu	
25 30 35	
gaa gaa ggg ggc tca tgg ggc cgt ggg aac cca agg ttc cat agt cct	258
Glu Glu Gly Gly Ser Trp Gly Arg Gly Asn Pro Arg Phe His Ser Pro	
40 45 50	
cag cac ccc cct gag gaa ttt ggc ttc ggc ttc agc ttc agc cca gga	306
Gln His Pro Pro Glu Glu Phe Gly Phe Gly Phe Ser Phe Ser Pro Gly	
55 60 65 70	
gga ggg ata cgt ttc cac gat aac ttc ggc ttt gat gac cta gta cga	354
Gly Gly Ile Arg Phe His Asp Asn Phe Gly Phe Asp Asp Leu Val Arg	
75 80 85	
gat ttc aat agc atc ttc agc gat atg ggg gcc tgg acc ttg cct tcc	402
Asp Phe Asn Ser Ile Phe Ser Asp Met Gly Ala Trp Thr Leu Pro Ser	
90 95 100	
cat cct cct gaa ctt cca ggt cct gag tca gag aca cct ggt gag aga	450
His Pro Pro Glu Leu Pro Gly Pro Glu Ser Glu Thr Pro Gly Glu Arg	
105 110 115	
cta mgg gag gga cag aca ctt cgg gac tca atg ctt aag tat cca gat	498
Leu Arg Glu Gly Gln Thr Leu Arg Asp Ser Met Leu Lys Tyr Pro Asp	
120 125 130	
agt c	502
Ser	
135	

<210> 2091
 <211> 314
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 29..313

<400> 2091	
aacctacttg gtctcctgct ttcgcgac atg gcc ttc aat ttt ggg gct ccc	52
Met Ala Phe Asn Phe Gly Ala Pro	
1 5	
tcg ggc acc tcc ggt acc gct gca gcc acc gcg gcc ccc gcg gnt ggg	100
Ser Gly Thr Ser Gly Thr Ala Ala Thr Ala Ala Pro Ala Xaa Gly	
10 15 20	
ttt gga gga ttt ggg aca aca tct aca act gca ggt tct gca ttc agc	148
Phe Gly Gly Phe Gly Thr Thr Ser Thr Thr Ala Gly Ser Ala Phe Ser	
25 30 35 40	
ttt tct gcc cca act aac aca ggc act act gga ctc ttt ggt ggt act	196
Phe Ser Ala Pro Thr Asn Thr Gly Thr Thr Gly Leu Phe Gly Gly Thr	
45 50 55	
cag aac aaa ggt ttt gga ttt ggt act ggt ttt ggc aca aca acg gga	244
Gln Asn Lys Gly Phe Gly Phe Gly Thr Gly Phe Gly Thr Thr Thr Gly	
60 65 70	
act agt act ggt tta ggt act ggt ttg gga act gga ctg gga ttt gga	292
Thr Ser Thr Gly Leu Gly Thr Gly Leu Gly Thr Gly Leu Gly Phe Gly	
75 80 85	

314

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<220>  
<221> CDS  
<222> 24..290
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53

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<220>  
<221> CDS  
<222> 145..378
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60

120

171

219

267

Asp	Ser	Cys	Gly	Gly	Leu	Tyr	Tyr	His	Asp	Asn	Asn	Leu	Leu	Ser	Gly	
				30					35					40		
tcc	ctg	gaa	gca	ctc	atc	cag	cac	tta	gta	cct	aat	gtg	gat	tac	tat	315
Ser	Leu	Glu	Ala	Leu	Ile	Gln	His	Leu	Val	Pro	Asn	Val	Asp	Tyr	Tyr	
			45					50				55				
cca	gat	aga	aca	tac	ata	ttt	acc	ttc	cta	ctc	agt	tct	cgg	tta	ttt	363
Pro	Asp	Arg	Thr	Tyr	Ile	Phe	Thr	Phe	Leu	Leu	Ser	Ser	Arg	Leu	Phe	
		60					65					70				
atg	cat	ccg	tat	gag												378
Met	His	Pro	Tyr	Glu												
				75												

<210> 2094
 <211> 305
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 5..304

<400> 2094																
atat	atg	ggg	gcg	ggg	acg	gct	ggg	gag	ctc	cca	gcc	aac	tct	gtg	tct	49
	Met	Gly	Ala	Gly	Thr	Ala	Gly	Glu	Leu	Pro	Ala	Asn	Ser	Val	Ser	
	1			5					10					15		
ggg	ttt	ttc	aag	agg	atg	gtg	aag	tcg	gag	gcc	agc	aat	gcg	gct	acc	97
Gly	Phe	Phe	Lys	Arg	Met	Val	Lys	Ser	Glu	Ala	Ser	Asn	Ala	Ala	Thr	
			20					25					30			
gcc	tat	ttc	cgt	cca	gca	aga	ccc	ttg	ccc	tct	ctg	gtc	aca	gtc	ctg	145
Ala	Tyr	Phe	Arg	Pro	Ala	Arg	Pro	Leu	Pro	Ser	Leu	Val	Thr	Val	Leu	
			35				40					45				
ggg	ctg	ggc	tac	ttc	gcg	tgg	gtt	gtc	ttc	tgg	cct	cag	agt	atc	cct	193
Gly	Leu	Gly	Tyr	Phe	Ala	Trp	Val	Val	Phe	Trp	Pro	Gln	Ser	Ile	Pro	
		50				55					60					
kat	cag	aac	ctt	ggg	ccc	ctg	ggc	ccc	ttc	act	cag	tac	ttg	gtg	gac	241
Xaa	Gln	Asn	Leu	Gly	Pro	Leu	Gly	Pro	Phe	Thr	Gln	Tyr	Leu	Val	Asp	
	65				70			75								
cac	cat	cac	acc	ctc	ctg	tgc	aat	ggg	tat	tgg	ctt	gcc	tgg	ctg	att	289
His	His	His	Thr	Leu	Leu	Cys	Asn	Gly	Tyr	Trp	Leu	Ala	Trp	Leu	Ile	
	80			85				90					95			
cat	gtg	gga	gag	tcc	t											305
His	Val	Gly	Glu	Ser												
				100												

<210> 2095
 <211> 272
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 113..271

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<400> 2095
ctctgcctga cctcctgtgc tcccagggaa cccagctgag ttcgtcgtga acacgagcaa 60
tgcgggagct ggtgccctgt cggtgaccat tgacggcccc tccaaggtga ag atg gat 118
Met Asp
1
tgc cag gag tgc cct gag ggc tac cgc gtc acc tat acc ccc atg gca 166
Cys Gln Glu Cys Pro Glu Gly Tyr Arg Val Thr Tyr Thr Pro Met Ala
5 10 15
cct ggc agc tac ctc atc tcc atc aag tac ggc ggc ccc tac cac att 214
Pro Gly Ser Tyr Leu Ile Ser Ile Lys Tyr Gly Gly Pro Tyr His Ile
20 25 30
ggg ggc agc ccc ttc aag gcc aaa gtc aca ggc ccc cgt ctc gtc agc 262
Gly Gly Ser Pro Phe Lys Ala Lys Val Thr Gly Pro Arg Leu Val Ser
35 40 45 50
aac cac agc c 272
Asn His Ser

<210> 2096
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 175..429

<400> 2096
agaacatctc gctcctcgcg cgtttccggt tccgctagsa ctctggcagt tacagccaca 60
accaaagtcc cggagatccg tgatgtaaca aggattgagc gaatcgggtgc ccaactccac 120
atccggggac tggggctgga cgatgccttg gagcctcggc aggcttcgca aggc atg 177
Met
1
gtg ggt cag ctg gcg gca cgg cgg gcg gct ggc gtg gtg ctg gag atg 225
Val Gly Gln Leu Ala Ala Arg Arg Ala Ala Gly Val Val Leu Glu Met
5 10 15
atc cgg gaa ggg aag att gcc ggt cgg gca gtc ctt att gct ggc cag 273
Ile Arg Glu Gly Lys Ile Ala Gly Arg Ala Val Leu Ile Ala Gly Gln
20 25 30
ccg ggc acg ggg aag acg gcc atc gcc atg ggc atg gcg cag gcc ctg 321
Pro Gly Thr Gly Lys Thr Ala Ile Ala Met Gly Met Ala Gln Ala Leu
35 40 45
ggc cct gac acg cca ttc acr gcc atc gcc ggc agt gaa atc ttc tcc 369
Gly Pro Asp Thr Pro Phe Thr Ala Ile Ala Gly Ser Glu Ile Phe Ser
50 55 60 65
ctg gag atg agc aag acc gag gcg ctg acg cag gcc ttc cgg cgg tcc 417
Leu Glu Met Ser Lys Thr Glu Ala Leu Thr Gln Ala Phe Arg Arg Ser
70 75 80
atc ggc gtt cgc 429
Ile Gly Val Arg
85

<210> 2097

<211> 373
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 67..372

<400> 2097
 gaggaagtct aaccttttggg agactccaag acagcagctc cgaggtcggc ggggggtctgg 60
 gtggcc atg gag gag ccc cmt gtg cga gaa gag gaa gag gag gag gga 108
 Met Glu Glu Pro Xaa Val Arg Glu Glu Glu Glu Glu Glu Gly
 1 5 10
 gag gag gac gag gag agg gac gag gtt ggg ccc gag ggg gcg ctg ggc 156
 Glu Glu Asp Glu Glu Arg Asp Glu Val Gly Pro Glu Gly Ala Leu Gly
 15 20 25 30
 aag agc ccc ttc cag ctg acc gcc gag gac gtg tat gac atc tcc tac 204
 Lys Ser Pro Phe Gln Leu Thr Ala Glu Asp Val Tyr Asp Ile Ser Tyr
 35 40 45
 ctg ttg ggc cgc gag ctt atg gcc ctg ggc agc gac ccc cgg gtg acg 252
 Leu Leu Gly Arg Glu Leu Met Ala Leu Gly Ser Asp Pro Arg Val Thr
 50 55 60
 cag ctg cag tnc aaa gtc gtc cgc gtc ctg gag atg ctg gag gcg ctg 300
 Gln Leu Gln Xaa Lys Val Val Arg Val Leu Glu Met Leu Glu Ala Leu
 65 70 75
 gtg aat gag ggc agc ctg gcg ctg gag gag ctg aag atg gag agg gac 348
 Val Asn Glu Gly Ser Leu Ala Leu Glu Glu Leu Lys Met Glu Arg Asp
 80 85 90
 cac ctc agg aag gag gtg gag ggg c 373
 His Leu Arg Lys Glu Val Glu Gly
 95 100

<210> 2098
 <211> 502
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 151..501

<400> 2098
 cacttcggc gtgcctacgc ctctctttgc gctgtcctgt taatggcggg cagtagccgc 60
 tgaggggatt gcagataacc gcttcccgca cggggaaagt ctaccctgcc tgccactttc 120
 tgctcgccgt cagcgccgga gctcgccagc atg tct gtg gta ccg ccc aat cgc 174
 Met Ser Val Val Pro Pro Asn Arg
 1 5
 tcg cag acc ggc tgg ccc cgg ggg gtc act cag ttc ggc aac aag tac 222
 Ser Gln Thr Gly Trp Pro Arg Gly Val Thr Gln Phe Gly Asn Lys Tyr
 10 15 20
 atc cag cag acg aag ccc ctc acc ctg gag cnc acc atc aac ctg wac 270
 Ile Gln Gln Thr Lys Pro Leu Thr Leu Glu Xaa Thr Ile Asn Leu Xaa

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25          30          35          40
cct ctt acc aat tat act ttt ggt aca aaa gag ccc ctc tac gag aag 318
Pro Leu Thr Asn Tyr Thr Phe Gly Thr Lys Glu Pro Leu Tyr Glu Lys
          45          50          55
gac agc tct gtt gca gcc aga ttt cag cgc atg agg gaa gaa ttt gat 366
Asp Ser Ser Val Ala Ala Arg Phe Gln Arg Met Arg Glu Glu Phe Asp
          60          65          70
aaa att gga atg agg agg act gta gaa ggg gtt ctg att gta cat gag 414
Lys Ile Gly Met Arg Arg Thr Val Glu Gly Val Leu Ile Val His Glu
          75          80          85
cac cgg cta scc cat gtg tta ctg ctg cag ctg gga aca act ttc ttc 462
His Arg Leu Xaa His Val Leu Leu Leu Gln Leu Gly Thr Thr Phe Phe
          90          95          100
aaa cta cct ggt ggt gaa ctt aac cca gga gaa gat gaa g 502
Lys Leu Pro Gly Gly Glu Leu Asn Pro Gly Glu Asp Glu
105          110          115

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<210> 2099
 <211> 377
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 193..375

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<400> 2099
gcagttgccg cattcgccgc attcgctgca ggcgcgaggt tgggtgcagg cagctgtttg 60
agcctcgagg catcgacgga cggacagacg gacggactga ctgacgatgc cgcgctctca 120
caggcctccg cctaccgcgc agggcntgcc actgccgcag cagccgagcc caagtctgag 180
ggcgttggtg ct atg act ttc aag att ttt ctc ctt ttt gca ggg ctt atg 231
      Met Thr Phe Lys Ile Phe Leu Leu Phe Ala Gly Leu Met
          1          5          10
gtt aaa gtt cct gtg ggg tta tat ttt tcc tgc aaa tta ctt ctt ttc 279
Val Lys Val Pro Val Gly Leu Tyr Phe Ser Cys Lys Leu Leu Leu Phe
          15          20          25
caa agt ctg atg ttg atg tcc cct gaa gac agc ggc ttt tat gcg acc 327
Gln Ser Leu Met Leu Met Ser Pro Glu Asp Ser Gly Phe Tyr Ala Thr
          30          35          40          45
att gtt gca gtg gtc ggg ctt cat gtg gtg ctg gca att ttc gtc ttc 375
Ile Val Ala Val Val Gly Leu His Val Val Leu Ala Ile Phe Val Phe
          50          55          60
at 377

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<210> 2100
 <211> 384
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 196..384

<400> 2100
gcmggttcg ggctggttgt tccgttgca gctgcagctg cgatctctgt ggtaggcccc 60
gaagtgtatg ctgacttgta aagtgaagaa gccagtggtg ctgcgggtgt tcttttgggg 120
tagtgtctgg gatccagtac gagttgaatc attgttcaaa taagggtgtaa ttgaaaagtg 180
atcctctctt cagag atg tca aaa aca aac aaa tcc aag tct gga tct cgc 231
Met Ser Lys Thr Asn Lys Ser Lys Ser Gly Ser Arg
1 5 10
tct tct cgc tca aga tct gca tca aga tct cgt tct cgt tca ttt tcg 279
Ser Ser Arg Ser Arg Ser Ala Ser Arg Ser Arg Ser Arg Ser Phe Ser
15 20 25
aag tct cgg tcc cga agc cga tct ctc tct cgt tca agg aag cgc agg 327
Lys Ser Arg Ser Arg Ser Arg Ser Leu Ser Arg Ser Arg Lys Arg Arg
30 35 40
ctg agt tct agg tct cgt tcc aga tca tat tct cca gct cat aac aga 375
Leu Ser Ser Arg Ser Arg Ser Arg Ser Tyr Ser Pro Ala His Asn Arg
45 50 55 60
gaa aga aac 384
Glu Arg Asn

<210> 2101
<211> 281
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 11..280

<400> 2101
aacatgcaag atg gcg gcc cat cac cgg cag aac aca gca ggg cgg agg 49
Met Ala Ala His His Arg Gln Asn Thr Ala Gly Arg Arg
1 5 10
aaa gtg cag gtt tcc tat gtt att cga gat gaa gtg gag aag tac aac 97
Lys Val Gln Val Ser Tyr Val Ile Arg Asp Glu Val Glu Lys Tyr Asn
15 20 25
cga aat gga gtc aat gct ctg cak stg gay cca gca cta mat agr ctt 145
Arg Asn Gly Val Asn Ala Leu Xaa Xaa Asp Pro Ala Leu Xaa Arg Leu
30 35 40 45
ttc asa gcn kgt cgn gac tct atc rta agr ata tgg agt gtc aat cag 193
Phe Xaa Ala Xaa Arg Asp Ser Ile Xaa Arg Ile Trp Ser Val Asn Gln
50 55 60
cac aag caa gat cca tak atw gca tct rtg kar cac cat act gat tgg 241
His Lys Gln Asp Pro Xaa Ile Ala Ser Xaa Xaa His His Thr Asp Trp
65 70 75
gta aac gac att gta ctc tgt tgt aat ggg gaa aca tta a 281
Val Asn Asp Ile Val Leu Cys Cys Asn Gly Glu Thr Leu
80 85 90

<210> 2102
<211> 324
<212> DNA
<213> Homo sapiens

<220>
 <221> CDS
 <222> 152..322

<400> 2102
 actcgtgcgc ctaccagaca gtggcggagg acggcgcctcg ctagtctccc aggtcgcggt 60
 acacggcgag aacgggcggg gcggtctcgg ctgcgtccgg gcgatccagt gcttagttcc 120
 gtcatatccc tctccacgac ctcggtcgag c atg ttc acc agg gcc cag gtg 172
 Met Phe Thr Arg Ala Gln Val
 1 5
 aga cgg att ctg cag cgg gtg ccc ggg aag cag cga ttt ggc atc tac 220
 Arg Arg Ile Leu Gln Arg Val Pro Gly Lys Gln Arg Phe Gly Ile Tyr
 10 15 20
 cgg ttc ctg ccc ttc ttt ttt gtc ctg gga gga acg atg gag tgg atc 268
 Arg Phe Leu Pro Phe Phe Phe Val Leu Gly Gly Thr Met Glu Trp Ile
 25 30 35
 atg att aaa gtg cgc gtg ggc cag gag acc ttc tat gat gtc tac cgt 316
 Met Ile Lys Val Arg Val Gly Gln Glu Thr Phe Tyr Asp Val Tyr Arg
 40 45 50 55
 aga aaa gc 324
 Arg Lys

<210> 2103
 <211> 298
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 72..296

<400> 2103
 ggagtgaggg tagcacgctg agctgaaggc tgtgcggasg gcgcggcaca gagcctgttg 60
 ttgagctcag t atg tcg tgg gaa tcc ggg gcc ggg cca ggt cta ggt tcc 110
 Met Ser Trp Glu Ser Gly Ala Gly Pro Gly Leu Gly Ser
 1 5 10
 cag ggg atg gat ctc gtg tgg agt gcg tgg tac gga aag tgc gtt aaa 158
 Gln Gly Met Asp Leu Val Trp Ser Ala Trp Tyr Gly Lys Cys Val Lys
 15 20 25
 ggg aaa ggg tcg ttg cca ctc tcg gcc cac ggc atc gtg gtc gcc tgg 206
 Gly Lys Gly Ser Leu Pro Leu Ser Ala His Gly Ile Val Val Ala Trp
 30 35 40 45
 ctc agc agg gcc gag tgg gac cag gtg acg gtt tat ctg ttc tgt gac 254
 Leu Ser Arg Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp
 50 55 60
 gac cat aag ttg cag cgg tac sgc tta acc gca tca cgg tgt gg 298
 Asp His Lys Leu Gln Arg Tyr Xaa Leu Thr Ala Ser Arg Cys
 65 70 75

<210> 2104
 <211> 416

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<210> 2105
<211> 470
<212> DNA
<213> Homo sapiens
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<400>	2105	
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cgggcgtggg	gtgaaatctc	ttgattccta
		gtctctcgat
		atg gca cct ccg tca
		Met Ala Pro Pro Ser
		1 5
gtc ttt gcc gag gtt ccg cag gcc cag cct gtc ctg gtc ttc aag ctc		163
Val Phe Ala Glu Val Pro Gln Ala Gln Pro Val Leu Val Phe Lys Leu		
	10 15 20	
act gcc gac ttc agg gag gat ccg gac ccc cgc aag gtc aac ctg gga		211
Thr Ala Asp Phe Arg Glu Asp Pro Asp Pro Arg Lys Val Asn Leu Gly		
	25 30 35	
gtg gga gca tat cgc acg gat gac tgc cat ccc tgg gtt ttg cca gta		259
Val Gly Ala Tyr Arg Thr Asp Asp Cys His Pro Trp Val Leu Pro Val		
	40 45 50	
gtg aag aaa gtg gag cag aag att gct aat gac aat agc cta aat cac		307
Val Lys Lys Val Glu Gln Lys Ile Ala Asn Asp Asn Ser Leu Asn His		
	55 60 65	
gag tat ctg cca atc ctg ggc ctg gct gag ttc cgg agc tgt gct tct		355

004220"666E550

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<400> 2107
atatacactt cttggctgtg tgcgctcagc aggacgtggg aggctccggc ttcaagacac 60
tcatccaaga ggaagg atg gcc agt atc ttt tct aag ttg cta act ggc cgc 112
Met Ala Ser Ile Phe Ser Lys Leu Leu Thr Gly Arg
1 5 10
aat gct tct ctg ctg ttt gct acc atg ggc acc agt gtc ctg acc acc 160
Asn Ala Ser Leu Leu Phe Ala Thr Met Gly Thr Ser Val Leu Thr Thr
15 20 25
ggg tac ctg ctg aac cgg cag aaa gtg tgt gcc gag gtc cgg gag cag 208
Gly Tyr Leu Leu Asn Arg Gln Lys Val Cys Ala Glu Val Arg Glu Gln
30 35 40
cct agg cta ttt cct cca agc gca gac tac cca gac ctg cgc aag cac 256
Pro Arg Leu Phe Pro Pro Ser Ala Asp Tyr Pro Asp Leu Arg Lys His
45 50 55 60
aac aac tgc atg gcc gag tgc ctc acc ccc gcc att tat gcc aag ctt 304
Asn Asn Cys Met Ala Glu Cys Leu Thr Pro Ala Ile Tyr Ala Lys Leu
65 70 75
cgc aac aag gtg aca ccc aac ggc tac acg ctg gac cag tgc atc cag 352
Arg Asn Lys Val Thr Pro Asn Gly Tyr Thr Leu Asp Gln Cys Ile Gln
80 85 90
act gga gtg gac aac cct ggc cac ccc ttc ata aag act gtg ggc atg 400
Thr Gly Val Asp Asn Pro Gly His Pro Phe Ile Lys Thr Val Gly Met
95 100 105
gtg gct ggt gac gag gag tcc tat gag gtg ttt 433
Val Ala Gly Asp Glu Glu Ser Tyr Glu Val Phe
110 115

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<210> 2108
 <211> 513
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 101..511

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<400> 2108
tgggcggaga tattcgccgc cggcgcttgc gcctggaagg tgtgccgcac cacacggggg 60
aggaaggaag gagctcccaa ctgcgccggc tggccacggg atg gcc ccc aaa ttc 115
Met Ala Pro Lys Phe
1 5
cca gac tct gtg gag gag ctc cgc gcc gcc ggc aat gag agt ttc cgc 163
Pro Asp Ser Val Glu Glu Leu Arg Ala Ala Gly Asn Glu Ser Phe Arg
10 15 20
aac ggc cag tac gcc gag gcc tcc gcg ctc tac ggc cgc gcg ctg cgg 211
Asn Gly Gln Tyr Ala Glu Ala Ser Ala Leu Tyr Gly Arg Ala Leu Arg
25 30 35
gtg ctg cag gcg caa ggt tct tca gac cca gaa gaa gaa agt gtt ctc 259
Val Leu Gln Ala Gln Gly Ser Ser Asp Pro Glu Glu Ser Val Leu
40 45 50
tac tcc aac cga gca gca tgt cac ttg aag gat gga aac tgc aga gac 307

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Tyr Ser Asn Arg Ala Ala Cys His Leu Lys Asp Gly Asn Cys Arg Asp
 55 60 65
 tgc atc aaa gat tgc act tca gca ctg gcc ttg gtt ccc tkc rrc att 355
 Cys Ile Lys Asp Cys Thr Ser Ala Leu Ala Leu Val Pro Xaa Xaa Ile
 70 75 80 85
 aag ccc ctg ctg cgg cga gca tct gct tat gag gct ctg gag aag tac 403
 Lys Pro Leu Leu Arg Arg Ala Ser Ala Tyr Glu Ala Leu Glu Lys Tyr
 90 95 100
 cct asn gcc tat gtt gac tat aag act gtg ctg cag att gat gat aat 451
 Pro Xaa Ala Tyr Val Asp Tyr Lys Thr Val Leu Gln Ile Asp Asp Asn
 105 110 115
 gtg acg tca gcc gta gaa grc atc aac aga atg acc asc sct ctc atg 499
 Val Thr Ser Ala Val Glu Xaa Ile Asn Arg Met Thr Xaa Xaa Leu Met
 120 125 130
 gac tcg ctt ggg cc 513
 Asp Ser Leu Gly
 135

<210> 2109
 <211> 497
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 123..497

<400> 2109
 gaagatcccc agcgctgcgg gctyggagag agtcctaacg gcgcctcgta cgctagtgtc 60
 ctcctttttc agtcgcgctc cctccctggg cgggctggc actcttgctt tccccgtccc 120
 tc atg gcg ctg ctc cga cgc ccg acg gtg tcc agt gat ttg gag aat 167
 Met Ala Leu Leu Arg Arg Pro Thr Val Ser Ser Asp Leu Glu Asn
 1 5 10 15
 att gac aca gga gtt aat tct aaa gtt aag agt cat gtg act att agg 215
 Ile Asp Thr Gly Val Asn Ser Lys Val Lys Ser His Val Thr Ile Arg
 20 25 30
 cga act gtt tta gaa gaa att gga aat aga gtt aca acc aga gca gca 263
 Arg Thr Val Leu Glu Glu Ile Gly Asn Arg Val Thr Thr Arg Ala Ala
 35 40 45
 caa gta gct aag aaa gct cag aac acc aaa gtt cca gtt caa ccc acc 311
 Gln Val Ala Lys Lys Ala Gln Asn Thr Lys Val Pro Val Gln Pro Thr
 50 55 60
 aaa aca aca aat gtc aac aaa caa ctg aaa cct act gct tct gtc aaa 359
 Lys Thr Thr Asn Val Asn Lys Gln Leu Lys Pro Thr Ala Ser Val Lys
 65 70 75
 cca gta cag atg gaa aag ttg gct cca aag ggt cct tct ccc aca cct 407
 Pro Val Gln Met Glu Lys Leu Ala Pro Lys Gly Pro Ser Pro Thr Pro
 80 85 90 95
 gag gat gtc tcc atg aag gaa gag aat ctc tgc caa gct ttt tct gat 455
 Glu Asp Val Ser Met Lys Glu Glu Asn Leu Cys Gln Ala Phe Ser Asp
 100 105 110
 gcc ttg ctc tgc aaa atc gag gac att gat aac gaa gat tgg 497
 Ala Leu Leu Cys Lys Ile Glu Asp Ile Asp Asn Glu Asp Trp

125

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<220>
<221> CDS
<222> 22..267
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<220>  
<221> CDS  
<222> 89..259
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<400> 2111																
attcctcgcg agtgtatggc gtgggctccc ttccccctct gtgggtcccg cgaggagact																60
ctcgggcttt gagccaattg caggtagc atg gcc cag ggc ttg att gag gtg																112
Met Ala Gln Gly Leu Ile Glu Val																
1 5																
gag cga aag ttc ctt cca ggg cct ggc aca gag gag cgg ctg cag gag																160
Glu Arg Lys Phe Leu Pro Gly Pro Gly Thr Glu Glu Arg Leu Gln Glu																
10 15 20																
ttg ggg ggc acc ctg gag tac cgg gtc acc ttc cga gac acc tac tat																208
Leu Gly Gly Thr Leu Glu Tyr Arg Val Thr Phe Arg Asp Thr Tyr Tyr																
25 30 35 40																
gac ann cct gag ctg agc ctc atg cag gct gac cac tgg ctg cga cga																256

Asp Xaa Pro Glu Leu Ser Leu Met Gln Ala Asp His Trp Leu Arg Arg
 45 50 55

cga g 260
 Arg

<210> 2112
 <211> 399
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 149..397

<400> 2112
 agaagctcta ggaccagca gcggtgtcg ggtttggggc tggaggtgaa gccctgtgtg 60
 aatggggttg attgtccggc rccacttccc cgcgtgcc gccagccgtc tccccagcc 120
 gagggactga actagccatg atcgctc atg tgg agg gca aag ttg cgc cgg 172
 Met Trp Arg Ala Lys Leu Arg Arg

1 5
 gga act tgt gag cct gcg gtg aaa gtt gaa gat cct ctt tgt aac ttc 220
 Gly Thr Cys Glu Pro Ala Val Lys Val Glu Asp Pro Leu Cys Asn Phe
 10 15 20
 cac tcc cca aac ttc ctg agg atc tca gag gtg gaa atg aga ggt tcc 268
 His Ser Pro Asn Phe Leu Arg Ile Ser Glu Val Glu Met Arg Gly Ser
 25 30 35 40
 gag gat gcg gca gct gga aca gta ttg cag cgg ctg atc cag gaa caa 316
 Glu Asp Ala Ala Gly Thr Val Leu Gln Arg Leu Ile Gln Glu Gln
 45 50 55
 ctg cgg tat ggc acc cca acc gag aac atg aac ttg ctg nns att cag 364
 Leu Arg Tyr Gly Thr Pro Thr Glu Asn Met Asn Leu Leu Xaa Ile Gln
 60 65 70
 cac cag gca cag gga gtg cag gcc agc cat cct ac 399
 His Gln Ala Gln Gly Val Gln Ala Ser His Pro
 75 80

<210> 2113
 <211> 411
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 109..411

<400> 2113
 aaaaaagccg ggcgtgasgg ccgcagtttc tggagggagc cgctgcgggt ctttcctca 60
 ctcgtcctcc gcgcgtgcc gctcttcggt tctgctctgt ccgccgcc atg gcc caa 117
 Met Ala Gln
 1
 gct gac atc gcg ctg atc gga ttg gcc gtc atg ggc cag aac tta att 165
 Ala Asp Ile Ala Leu Ile Gly Leu Ala Val Met Gly Gln Asn Leu Ile

5	10	15	
ctg aac atg aat gac cac ggc ttt gtg gtc tgt gct ttt aat agg act			213
Leu Asn Met Asn Asp His Gly Phe Val Val Cys Ala Phe Asn Arg Thr			
20	25	30	35
gtc tcc aaa gtt gac gat ttc ttg gcc aat gag gca aag gga acc aaa			261
Val Ser Lys Val Asp Asp Phe Leu Ala Asn Glu Ala Lys Gly Thr Lys			
	40	45	50
gtg gtg ggt gcc cag tcc ctg aaa gag atg gtc tcc aag ctg aag aag			309
Val Val Gly Ala Gln Ser Leu Lys Glu Met Val Ser Lys Leu Lys Lys			
	55	60	65
ccc cgg cgg atc atc ctc ctg gtg aag gct ggg caa gct gtg gat gat			357
Pro Arg Arg Ile Ile Leu Leu Val Lys Ala Gly Gln Ala Val Asp Asp			
	70	75	80
ttc atc gag aaa ttg gta cca ttg ttg gat act ggt gac atc atc att			405
Phe Ile Glu Lys Leu Val Pro Leu Leu Asp Thr Gly Asp Ile Ile Ile			
	85	90	95
gac gga			411
Asp Gly			
100			

<210> 2114
 <211> 317
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 88..315

<400> 2114	
acagggtatc cacgtgggtt ctgagcgtgt ttctacgtcc ctggaagccg gtcatttaag	60
ctcattcctc gccacggctt agtcaac atg ggt cgc tcg gga aag ttg ccc tct	114
Met Gly Arg Ser Gly Lys Leu Pro Ser	
	1 5
ggt gtc tca gct aag ttg aag cgc tgg aag aaa ggc cac agc agc gac	162
Gly Val Ser Ala Lys Leu Lys Arg Trp Lys Lys Gly His Ser Ser Asp	
10	15 20 25
agc aac ccc gcc atc tgc cgc cac cgt cag gcc gcc cgc agc cgc ttc	210
Ser Asn Pro Ala Ile Cys Arg His Arg Gln Ala Ala Arg Ser Arg Phe	
	30 35 40
ttc agc cgg ccg tca gga agg agt gac ctg aca gtc gat gct gtg aag	258
Phe Ser Arg Pro Ser Gly Arg Ser Asp Leu Thr Val Asp Ala Val Lys	
	45 50 55
tta cat aat gag ctg cag tca ggg tcc ttg cgc ttg ggc aaa agc gaa	306
Leu His Asn Glu Leu Gln Ser Gly Ser Leu Arg Leu Gly Lys Ser Glu	
	60 65 70
ccc cgg aga cg	317
Pro Arg Arg	
75	

<210> 2115
 <211> 272
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 87..272

<400> 2115

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akcgggggac cggaagtngc tckcggakgc tcagaagcta gtcccggagc ccggcggtgtg      60
gcgcctcggga kcrccgtgac ggcgcc atg tcc cta atc tgc tcc atc tct aac      113
                               Met Ser Leu Ile Cys Ser Ile Ser Asn
                               1           5
gaa gtg ccg gag cac cca tgt gta tcc cct gtc tct aat cat gtt tat      161
Glu Val Pro Glu His Pro Cys Val Ser Pro Val Ser Asn His Val Tyr
10           15           20           25
gag cgg ccg ctc atc gag aag tac att gcg gag aat ggt acc gac ccc      209
Glu Arg Arg Leu Ile Glu Lys Tyr Ile Ala Glu Asn Gly Thr Asp Pro
           30           35           40
atc aac aac cag cct ctc tcc gag gag cag ctc atc gac atc aaa gtt      257
Ile Asn Asn Gln Pro Leu Ser Glu Glu Gln Leu Ile Asp Ile Lys Val
           45           50           55
gct cac cca atc cgg      272
Ala His Pro Ile Arg
           60

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<210> 2116

<211> 426

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 171..425

<400> 2116

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aatcgcgaaa gtgtcgtgaa cgtgctgccc cgcacagtc acccagtcgg ctggagtcgg      60
aggcgatatt tctaggggtg tacttggttg ggtcagggta agcaccagcc acaaaaacct      120
acaaaagaag ggaaattact gtcttttaaat attaaaaaaa aacaagatcc atg agt      176
                               Met Ser
                               1
ggg cat cga tca aca agg aaa aga tgt gga gat tct cac ccg gag tcc      224
Gly His Arg Ser Thr Arg Lys Arg Cys Gly Asp Ser His Pro Glu Ser
           5           10           15
cca gtg ggc ttc ggg cat atg agt act aca gga tgt gta tta aat aaa      272
Pro Val Gly Phe Gly His Met Ser Thr Thr Gly Cys Val Leu Asn Lys
           20           25           30
ttg ttt cag tta cca aca cca cca ttg tca aga cac caa cta aag cgg      320
Leu Phe Gln Leu Pro Thr Pro Pro Leu Ser Arg His Gln Leu Lys Arg
           35           40           45           50
cta gaa gaa cac aga tat caa agt gct gga cgg tcc ctg ctt gag ccc      368
Leu Glu Glu His Arg Tyr Gln Ser Ala Gly Arg Ser Leu Leu Glu Pro
           55           60           65
tta atg caa ggg tat tgg gaa tng ctc gtt aga gag ttc cct cct gga      416

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Leu Met Gln Gly Tyr Trp Glu Xaa Leu Val Arg Glu Phe Pro Pro Gly
 70 75 80

ttg ccc aaa t
 Leu Pro Lys
 85

426

<210> 2117
 <211> 415
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 13..414

<400> 2117
 gaccgcgcta ag atg gcg act ccc atg cat cgg cta ata gcc cgg aga caa 51
 Met Ala Thr Pro Met His Arg Leu Ile Ala Arg Arg Gln
 1 5 10
 gca ttc gac aca gag ttg cag cct gtc aag acc ttt tgg atc ctg att 99
 Ala Phe Asp Thr Glu Leu Gln Pro Val Lys Thr Phe Trp Ile Leu Ile
 15 20 25
 cag cca tcc atc gtt att agt gaa gca aat aag caa cat gta aga tgt 147
 Gln Pro Ser Ile Val Ile Ser Glu Ala Asn Lys Gln His Val Arg Cys
 30 35 40 45
 cag aaa tgc ttg gaa ttt gga cat tgg act tat gaa tgc aca gga aaa 195
 Gln Lys Cys Leu Glu Phe Gly His Trp Thr Tyr Glu Cys Thr Gly Lys
 50 55 60
 aga aaa tac cta cat agg ccc tca agg aca gca gaa cta aag aaa gct 243
 Arg Lys Tyr Leu His Arg Pro Ser Arg Thr Ala Glu Leu Lys Lys Ala
 65 70 75
 tta aaa gaa aaa gaa aac aga tta tta ttg caa caa agc att gga gaa 291
 Leu Lys Glu Lys Glu Asn Arg Leu Leu Leu Gln Gln Ser Ile Gly Glu
 80 85 90
 acc aat gta gaa aga aag gcc aag aaa aaa agg tct aag agt gta acc 339
 Thr Asn Val Glu Arg Lys Ala Lys Lys Lys Arg Ser Lys Ser Val Thr
 95 100 105
 agt tcc agt agc agt agc agt gac agt tct gcc agt gat tct tca tca 387
 Ser Ser Ser Ser Ser Ser Ser Asp Ser Ala Ser Asp Ser Ser Ser
 110 115 120 125
 gag agt gaa gaa aca tct acc tct tcc t 415
 Glu Ser Glu Glu Thr Ser Thr Ser Ser
 130

<210> 2118
 <211> 289
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 53..289

<400> 2118
 actctgtcac ctccgctgga aggagtggaa cccagacttg ctggtctgat cc atg cas 58
 Met Xaa
 1
 awg gcs rgg ctg cta ggc ctc tgt gcc cgg gct tgg aat tcg gtg cgg 106
 Xaa Ala Xaa Leu Leu Gly Leu Cys Ala Arg Ala Trp Asn Ser Val Arg
 5 10 15
 atg gcc agc tcc ggg atg acc cgc cgg gac ccg ctc gca aat aag gtg 154
 Met Ala Ser Ser Gly Met Thr Arg Arg Asp Pro Leu Ala Asn Lys Val
 20 25 30
 gcc ctg gta acg gcc tcc acc gac ggg atc ggc ttc gcc atc gcc cgg 202
 Ala Leu Val Thr Ala Ser Thr Asp Gly Ile Gly Phe Ala Ile Ala Arg
 35 40 45 50
 cgt ttg gcc cag gac ggg gcc cat gtg gtc gtc agc agc cgg aag cag 250
 Arg Leu Ala Gln Asp Gly Ala His Val Val Val Ser Ser Arg Lys Gln
 55 60 65
 cag aat gtg gac cag gcg gtg gcc acg ctg cag ggg gag 289
 Gln Asn Val Asp Gln Ala Val Ala Thr Leu Gln Gly Glu
 70 75

<210> 2119
 <211> 439
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 264..437

<400> 2119
 gctcagctga cagctcccca gaacggaaga ggcggcgcg gcgknttgagc agggcgtytc 60
 taggcctggt cggctggcgg cgatggcagg attttcataa tatatgtagt atgagttcca 120
 catcttgccc tcttacgcca gcttcagcag tctcagctcc accagttaga gaataaatgg 180
 gatttgcatg aactccactc tgagctgaaa tacagactgc ggtgttaata tccttttctt 240
 ctgattgtta ttaacaggtc ctt atg tcg tca gaa gat cga gaa gct cag gag 293
 Met Ser Ser Glu Asp Arg Glu Ala Gln Glu
 1 5 10
 gat gaa ttg ctg gcc ctg gca agt att tac gat gga gat gaa ttt aga 341
 Asp Glu Leu Leu Ala Leu Ala Ser Ile Tyr Asp Gly Asp Glu Phe Arg
 15 20 25
 aaa gca gag tct gtc caa ggt gga gaa acc agg atc tat ttg gat ttg 389
 Lys Ala Glu Ser Val Gln Gly Gly Glu Thr Arg Ile Tyr Leu Asp Leu
 30 35 40
 cca cag aat ttc aag ata ttt gtg rrc gcw atc tgc tct atg caa gca 437
 Pro Gln Asn Phe Lys Ile Phe Val Xaa Ala Ile Cys Ser Met Gln Ala
 45 50 55
 ct 439

<210> 2120
 <211> 494
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 264..494

<400> 2120
 gctcagctga cagctcccga gaacggaaga ggcggcgcg cgnnttgagc agggcgtttc 60
 taggcctggt cggctggcgg cgatggcagg attttcataa tatatgtagt atgagttcca 120
 catcttgccc tcttacgcca gcttcagcag tctcagctcc accagttaga gaataaatgg 180
 gatttgcatg aactccactc tgagctgaaa tacagactgc ggtgttaata tccttttctt 240
 ctgattgtta ttaacaggctc ctt atg tcg tca gaa gat cga gaa gct cag gag 293
 Met Ser Ser Glu Asp Arg Glu Ala Gln Glu
 1 5 10
 gat gaa ttg ctg gcc ctg gca agt att tac gat gga gat gaa ttt aga 341
 Asp Glu Leu Leu Ala Leu Ala Ser Ile Tyr Asp Gly Asp Glu Phe Arg
 15 20 25
 aaa gca gag tct gtc caa ggt gga gaa acc agg atc tat ttg gat ttg 389
 Lys Ala Glu Ser Val Gln Gly Gly Glu Thr Arg Ile Tyr Leu Asp Leu
 30 35 40
 cca cag aat ttc aag ata ttt gtg agc ggc aat tca aat gag tgt ctc 437
 Pro Gln Asn Phe Lys Ile Phe Val Ser Gly Asn Ser Asn Glu Cys Leu
 45 50 55
 cag aat agt ggc ttt gaa tac acc att tgc ttt ctg cct cca ctt gtg 485
 Gln Asn Ser Gly Phe Glu Tyr Thr Ile Cys Phe Leu Pro Pro Leu Val
 60 65 70
 ctg aac ttt 494
 Leu Asn Phe
 75

<210> 2121
 <211> 262
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 101..262

<400> 2121
 agaacagaca gacctactga cacaggggag gtgagaaggg aggtgaccac caggactggc 60
 tctgtgagta ccacacagtg gggaggggggt gggggccacc atg tca tca tat cag 115
 Met Ser Ser Tyr Gln
 1 5
 aag gaa ctg gag aaa tac aga gac ata gat gaa gat gag atc cta agg 163
 Lys Glu Leu Glu Lys Tyr Arg Asp Ile Asp Glu Asp Glu Ile Leu Arg
 10 15 20
 acc ttg agc ccc gag gag cta gag cag ctg gac tgc gaa cta cag gag 211
 Thr Leu Ser Pro Glu Glu Leu Glu Gln Leu Asp Cys Glu Leu Gln Glu
 25 30 35
 atg gat cct gag aac atg ctc ctg cca gct gga cta aga caa cgt gac 259
 Met Asp Pro Glu Asn Met Leu Leu Pro Ala Gly Leu Arg Gln Arg Asp
 40 45 50

cag
Gln

262

<210> 2122
<211> 325
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 104..325

<400> 2122
ctctgtctgc cagggctctcc gactgtccca gacgggctgg tgtgggcttg ggatcctcct 60
ggtgacctct cccgctaagg tccctcagcc actctgcccc aag atg ggc cgt ggg 115
Met Gly Arg Gly
1
gct ggc cgt gag tac tca cct gcc gcc acc acg gca gag aat ggg ggc 163
Ala Gly Arg Glu Tyr Ser Pro Ala Ala Thr Thr Ala Glu Asn Gly Gly
5 10 15 20
ggc aag aag aaa cag aag gag aag gaa ctg gat gag ctg aag aag gag 211
Gly Lys Lys Lys Gln Lys Glu Lys Glu Leu Asp Glu Leu Lys Lys Glu
25 30 35
gtg gca atg gat gac cac aag ctg tcc ttg gat gag ctg ggc cgc aaa 259
Val Ala Met Asp Asp His Lys Leu Ser Leu Asp Glu Leu Gly Arg Lys
40 45 50
tac caa gtg gac ctg tcc aag ggc ctc acc aac cag cgg gct cag gac 307
Tyr Gln Val Asp Leu Ser Lys Gly Leu Thr Asn Gln Arg Ala Gln Asp
55 60 65
gtt ctg gct cga sat ggg 325
Val Leu Ala Arg Xaa Gly
70

<210> 2123
<211> 199
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 24..197

<400> 2123
attgtttcct actaaatacc caa atg tgt cac aca ggc atc acc agt ggg aat 53
Met Cys His Thr Gly Ile Thr Ser Gly Asn
1 5 10
ttt gtt ttt aaa cat tta gaa ata aaa cag ttt ttg acc cat aag cca 101
Phe Val Phe Lys His Leu Glu Ile Lys Gln Phe Leu Thr His Lys Pro
15 20 25
gtc cta acg cat agg gta atg ggg atc gag gct aaa cac aca cac aac 149
Val Leu Thr His Arg Val Met Gly Ile Glu Ala Lys His Thr His Asn
30 35 40

<400> 2127

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agtgcgcatg ttcactgggc gtcttctgcc nkgcccccttc gcccacgtga agaacgccag      60
ggagctgtga ggcagtgctg tgtggttcct gccgtccgga ctctttttcc tctactgaga      120
ttcatctgtg tgaaatatga gttggcgagg aagatcgacc tatnayggcc tagaccaagr      180
cgctatgtac agcctcctga a atg att ggg cct atg cgg ccc gag cag ttc      231
                        Met Ile Gly Pro Met Arg Pro Glu Gln Phe
                        1           5           10
agt gat gaa gtg gaa cca gca aca cct gaa gaa ggg gaa cca gca act      279
Ser Asp Glu Val Glu Pro Ala Thr Pro Glu Glu Gly Glu Pro Ala Thr
                        15           20           25
caa ygt cag gat cct gca gct gct cag rag gga gag gat gag gga gca      327
Gln Xaa Gln Asp Pro Ala Ala Ala Gln Xaa Gly Glu Asp Glu Gly Ala
                        30           35           40
tct gca ggt caa ggg ccg aag cct gaa gct cat agc cag gaa cag ggt      375
Ser Ala Gly Gln Gly Pro Lys Pro Glu Ala His Ser Gln Glu Gln Gly
                        45           50           55
cac cca cag act ggg tgt gag tgt gaa gat ggt cct gat ggg cag gag      423
His Pro Gln Thr Gly Cys Glu Cys Glu Asp Gly Pro Asp Gly Gln Glu
                        60           65           70
atg gam c      430
Met Xaa
75

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<210> 2128

<211> 404

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 217..402

<400> 2128

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gagtcggcgc ggccacatcc tttaaatatg gtctttcttg ggcgcgcgcg acaatgtgag      60
gagtggggtg ggcgtgtgt ggtgtgtggc tgcggcctgg gcaagagccg ccgcggacca      120
tgagctgagt aagttctgga gggatcctgc ctcttgagac cttcgcagcc aggcagctgt      180
gaactgtgag ctagagtga gcaaaaatct aggaag atg agc tcc aag atg gtc      234
                        Met Ser Ser Lys Met Val
                        1           5
ata agt gaa cca gga ctg aat tgg gat att tcc ccc aaa aat ggc ctt      282
Ile Ser Glu Pro Gly Leu Asn Trp Asp Ile Ser Pro Lys Asn Gly Leu
                        10           15           20
aag aca ttt ttc tct cga gaa aat tat aaa gat cat tcc atg gct cca      330
Lys Thr Phe Phe Ser Arg Glu Asn Tyr Lys Asp His Ser Met Ala Pro
                        25           30           35
agt tta aaa gaa cta cgt gtt tta tcc aac aga gag agc aga gga gtt      378
Ser Leu Lys Glu Leu Arg Val Leu Ser Asn Arg Glu Ser Arg Gly Val
                        40           45           50
atg tgg act tgt tgg tta aat acg ca      404
Met Trp Thr Cys Trp Leu Asn Thr
55           60

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SECRET

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<400> 2129
accgggagct gagcaaggcc cagaaccagt tcacagtat atg agg ttc tta acc          54
                                         Met Arg Phe Leu Thr
                                         1          5
ctc gga aga aat gta aga aga aga aat atg tca act cag gaa ctg aca          102
Leu Gly Arg Asn Val Arg Arg Arg Asn Met Ser Thr Gln Glu Leu Thr
                                         10          15          20
cag ctg aac ttc aca gta gcc att gac ttc acg gct tcc aat ggg aat          150
Gln Leu Asn Phe Thr Val Ala Ile Asp Phe Thr Ala Ser Asn Gly Asn
                                         25          30          35
cct ctg cag cct acc tcc ctg cac tac atg agt ccc tac cag ctc agc          198
Pro Leu Gln Pro Thr Ser Leu His Tyr Met Ser Pro Tyr Gln Leu Ser
                                         40          45          50
gcc tat gcc atg g
Ala Tyr Ala Met
                                         55

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<220>  
<221> CDS  
<222> 74..361
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1404

	65		70		75	
tat ggg gtc	cag aca ttg gac atg	cct gtg ggc atg acc cat ggc ttg	349			
Tyr Gly Val	Gln Thr Leu Asp Met	Pro Val Gly Met Thr His Gly Leu				
	80	85	90			
atg gaa gca ggg cg			363			
Met Glu Ala Gly						
	95					

<210> 2131
 <211> 597
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 267..596

<400> 2131	
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tgggaactgg gaaatccctt tcctggattc actgggagca ccgggaggtg gctgagaacc	120
ctacttctgt gaggggagca gtgaggcagg gaaaccctag gtttggggat ggataagcag	180
gggcaggaga gcagagcttg caggcaggag cccaggttct agtcttggga aggchnnggtt	240
ctgagcaggc ccatctgtcc ggcagg atg tcg gag gag atc atc acg ccg gtg	293
	Met Ser Glu Glu Ile Ile Thr Pro Val
	1 5
tac tgc act ggg gtg tca gcc caa gtg cag aag cag cgg gcc agg gag	341
Tyr Cys Thr Gly Val Ser Ala Gln Val Gln Lys Gln Arg Ala Arg Glu	
10 15 20 25	
ctg ggc ctg ggc cgc cat gag aat gcc atc aag tac ctg ggc cag gat	389
Leu Gly Leu Gly Arg His Glu Asn Ala Ile Lys Tyr Leu Gly Gln Asp	
30 35 40	
tat gag cag ctg cgg gtg cga tgc ctg cag agt ggg acc ctc ttc cgt	437
Tyr Glu Gln Leu Arg Val Arg Cys Leu Gln Ser Gly Thr Leu Phe Arg	
45 50 55	
gat gag gcc ttc ccc ccg gta ccc cag agc ctg ggt tac aag gac ctg	485
Asp Glu Ala Phe Pro Pro Val Pro Gln Ser Leu Gly Tyr Lys Asp Leu	
60 65 70	
ggt ccc aat tcc tcc aag acc tat ggc atc aag tgg aag cgt ccc acg	533
Gly Pro Asn Ser Ser Lys Thr Tyr Gly Ile Lys Trp Lys Arg Pro Thr	
75 80 85	
gaa ctg ctg tca aac ccc cag ttc att gtg gat gga gct acc cgc aca	581
Glu Leu Leu Ser Asn Pro Gln Phe Ile Val Asp Gly Ala Thr Arg Thr	
90 95 100 105	
gac atc tgc cag gga g	597
Asp Ile Cys Gln Gly	
110	

<210> 2132
 <211> 438
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS
<222> 108..437

<400> 2132

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actacagagc tgcaascctt gacaatggga tccgggaaag gagaggtggc cggcacgcct      60
gggaactggg aaatcccttt cctggattca ctgggagcac cgggagg atg tcg gag      116
                                   Met Ser Glu
                                   1
gag atc atc acg ccg gtg tac tgc act ggg gtg tca gcc caa gtg cag      164
Glu Ile Ile Thr Pro Val Tyr Cys Thr Gly Val Ser Ala Gln Val Gln
   5                               10                               15
aag cag cgg gcc agg gag ctg ggc ctg ggc cgc cat gag aat gcc atc      212
Lys Gln Arg Ala Arg Glu Leu Gly Leu Gly Arg His Glu Asn Ala Ile
  20                               25                               30                               35
aag tac ctg ggc cag gat tat gag cag ctg cgg gtg cga tgc ctg cag      260
Lys Tyr Leu Gly Gln Asp Tyr Glu Gln Leu Arg Val Arg Cys Leu Gln
                               40                               45                               50
agt ggg acc ctc ttc cgt gat gag gcc ttc ccc ccg gta ccc cag agc      308
Ser Gly Thr Leu Phe Arg Asp Glu Ala Phe Pro Pro Val Pro Gln Ser
                               55                               60                               65
ctg ggt tac aag gac ctg ggt ccc aat tcc tcc aag acc tat ggc atc      356
Leu Gly Tyr Lys Asp Leu Gly Pro Asn Ser Ser Lys Thr Tyr Gly Ile
  70                               75                               80
aag tgg aag cgt ccc acg gaa ctg ctg tca aac ccc cag ttc att gtg      404
Lys Trp Lys Arg Pro Thr Glu Leu Leu Ser Asn Pro Gln Phe Ile Val
  85                               90                               95
gat gga gct acc cgc aca gac atc tgc cag gga g      438
Asp Gly Ala Thr Arg Thr Asp Ile Cys Gln Gly
100                               105                               110

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<210> 2133
<211> 465
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 57..464

<400> 2133

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gattttaggg gtagggagaa gtgtcagctt caggcatcgc gaggcgtggc ggcccc atg      59
                                   Met
                                   1
gcc ccg ctg gga ggc gcc ccg cgg ctg gta ctg ctg ttc agc grc aag      107
Ala Pro Leu Gly Gly Ala Pro Arg Leu Val Leu Leu Phe Ser Xaa Lys
   5                               10                               15
agg aaa tcc ggg aag gac ttc gtg acc sag gcg ctg cag agc aga ctt      155
Arg Lys Ser Gly Lys Asp Phe Val Thr Xaa Ala Leu Gln Ser Arg Leu
  20                               25                               30
gga gct gat gtc tgt gct gtc ctc cgg ctc tct ggt cca ctc aag gaa      203
Gly Ala Asp Val Cys Ala Val Leu Arg Leu Ser Gly Pro Leu Lys Glu
  35                               40                               45

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<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 154..348

<400> 2135
gagactgctt ccacttcggg cgggggagcc ccggaccgaa tcggctctct aggccgtgga 60
gcttgccgtc ccacctccgt ccaaategac ctttcctttc tatccccaac caccctcaa 120
cccctgtttt cccctgcctt ccttgcagag gcc atg gag gac gag gag aga cag 174
Met Glu Asp Glu Glu Arg Gln
1 5
aag aag ctg gag gcc ggc aaa gcc aag ctt gcc cag ttt cga caa aga 222
Lys Lys Leu Glu Ala Gly Lys Ala Lys Leu Ala Gln Phe Arg Gln Arg
10 15 20
aaa gct cag tcg gat ggg cag agt cct tcc aag aag cag aaa aar aag 270
Lys Ala Gln Ser Asp Gly Gln Ser Pro Ser Lys Lys Gln Lys Lys Lys
25 30 35
aga aaa acg tca agc agt aaa cat gat gtg tca gca cac cat gat ttg 318
Arg Lys Thr Ser Ser Ser Lys His Asp Val Ser Ala His His Asp Leu
40 45 50 55
aat att gat caa tca cag tgt aat gaa atg t 349
Asn Ile Asp Gln Ser Gln Cys Asn Glu Met
60 65

<210> 2136
<211> 342
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 78..341

<400> 2136
gtggtttccg gaacttcgcc cgcgtctctg ggcttttgct ctgtcaggct ggtggcgttt 60
tgggtgtcttc gtttggtt atg gcc gct gct gtc gct atg gag aca gat gat 110
Met Ala Ala Ala Val Ala Met Glu Thr Asp Asp
1 5 10
gct gga aat cga ctt cgg ttt cag ttg gag ttg gaa ttt gtg caa tgt 158
Ala Gly Asn Arg Leu Arg Phe Gln Leu Glu Leu Glu Phe Val Gln Cys
15 20 25
tta gcc aac cca aat tac ctk aat ttt ctt gcc caa aga ggt tac ttc 206
Leu Ala Asn Pro Asn Tyr Leu Asn Phe Leu Ala Gln Arg Gly Tyr Phe
30 35 40
aaa gac aaa gct ttt gtt aat kat ctk aaa tac ttg ctt tac tgg gaa 254
Lys Asp Lys Ala Phe Val Asn Xaa Leu Lys Tyr Leu Leu Tyr Trp Glu
45 50 55
gac cca gaa tat gcc aag tat cta aag tam cct cag tgt tta cac atg 302
Asp Pro Glu Tyr Ala Lys Tyr Leu Lys Xaa Pro Gln Cys Leu His Met
60 65 70 75

tta gag ctg ctc caa tat gaa cac ttc cga aag gag ctg g 342
 Leu Glu Leu Leu Gln Tyr Glu His Phe Arg Lys Glu Leu
 80 85

<210> 2137
 <211> 405
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 119..403

<400> 2137
 gagtcctact cagccccagc ggaggtgaag gacgtccttc cccaggagcc gactggccaa 60
 tcacaggcag gaagatgaag gttctgtggg ctgcgttgct ggtcacattc ctggcagg 118
 atg cca ggc caa ggt gga gca agc ggt gga gac aga gcc gga gcc cga 166
 Met Pro Gly Gln Gly Gly Ala Ser Gly Gly Asp Arg Ala Gly Ala Arg
 1 5 10 15
 gct gcg cca sag acc gag tgg cag agc ggc cag cgc tgg gaa ctg gca 214
 Ala Ala Pro Xaa Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala
 20 25 30
 ctg ggt cgc ttt tgg gat tac ctg cgc tgg gtg cag aca ctg tct gag 262
 Leu Gly Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu
 35 40 45
 cag gtg cag gag gag ctg ctc agc tcc cag gtc acc cag gaa ctg agg 310
 Gln Val Gln Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg
 50 55 60
 gcg ctg atg gac gag acc atg aag gag ttg aag gcc tac aaa tcg gaa 358
 Ala Leu Met Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu
 65 70 75 80
 ctg gag gaa caa ctg acc cgg tgg cgg agg aga cgc ggg cac ggc tg 405
 Leu Glu Glu Gln Leu Thr Arg Trp Arg Arg Arg Arg Gly His Gly
 85 90 95

<210> 2138
 <211> 271
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 39..269

<400> 2138
 ctcgctcacc ctgggttcctc tcggagcggg gacggcaa atg gcg gac ttc gac acc 56
 Met Ala Asp Phe Asp Thr
 1 5
 tac gac gat cgg gcc tac agc agc ttc ggc ggc ggc aga ggg tcc cgc 104
 Tyr Asp Asp Arg Ala Tyr Ser Ser Phe Gly Gly Gly Arg Gly Ser Arg
 10 15 20
 ggc agt gct ggt ggc cat ggt tcc cgt agc cag aag gag ttg ccc aca 152

Gly	Ser	Ala	Gly	Gly	His	Gly	Ser	Arg	Ser	Gln	Lys	Glu	Leu	Pro	Thr	
	25					30				35						
gag	ccc	ccc	tac	aca	gca	tac	gta	gga	aat	cta	cct	ttc	aat	acg	gtt	200
Glu	Pro	Pro	Tyr	Thr	Ala	Tyr	Val	Gly	Asn	Leu	Pro	Phe	Asn	Thr	Val	
	40					45				50						
cag	ggc	gac	ata	gat	gct	atc	ttt	aag	gat	ctc	agc	ata	agg	agt	gta	248
Gln	Gly	Asp	Ile	Asp	Ala	Ile	Phe	Lys	Asp	Leu	Ser	Ile	Arg	Ser	Val	
55					60					65					70	
cgg	cta	gtc	aga	rac	aaa	gac	ac									271
Arg	Leu	Val	Arg	Xaa	Lys	Asp										
					75											

<210> 2139
 <211> 479
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 185..478

<400> 2139	
gactgggtgt taccgaggaa gatggcggcg ccagaccgga ggcgctaggg aagatcgcac	60
cgcgacgcc cgctgagctt ggcgcacggg ccgaccagga gctggtgact gccctcatgt	120
gtgatttgcg gcggccagcg gcaggtggga tgatggactt ggcctacgtc tgtgagtggg	180
agaa atg gtc caa gag cac cca ctg ccc atc ggt gcc cct ggc ctg cgc	229
Met Val Gln Glu His Pro Leu Pro Ile Gly Ala Pro Gly Leu Arg	
1 5 10 15	
ctg gtc ctg ccg aaa tct cat cgc ctt cac cat gga cct gcg cas gat	277
Leu Val Leu Pro Lys Ser His Arg Leu His His Gly Pro Ala Xaa Asp	
20 25 30	
gac cag gac ctg acc cgc atg atc cac atc ctg gac acg gag cac ccc	325
Asp Gln Asp Leu Thr Arg Met Ile His Ile Leu Asp Thr Glu His Pro	
35 40 45	
tgg gac ctg cac tcg mss ccc tca gag cac cac gag gcc atc acc tgc	373
Trp Asp Leu His Ser Xaa Pro Ser Glu His His Glu Ala Ile Thr Cys	
50 55 60	
ctg gag tgg gac cag tca ggc tcc cgg ctc ctg tca gca gat gcc gac	421
Leu Glu Trp Asp Gln Ser Gly Ser Arg Leu Leu Ser Ala Asp Ala Asp	
65 70 75	
ggg cag atc aag tgc tgg agc atn gcg acc amc tgg cta ata gct ggg	469
Gly Gln Ile Lys Cys Trp Ser Xaa Ala Thr Xaa Trp Leu Ile Ala Gly	
80 85 90 95	
aga gct cag t	479
Arg Ala Gln	

<210> 2140
 <211> 387
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 35..385

<400> 2140

aaaaatctct ctgccggtct tctgggaagg gaga atg gcg gcg ccc ggg ctg cgg 55
Met Ala Ala Pro Gly Leu Arg
1 5
ctg gga gcg gga aga ctc ttt gaa atg cct gcg gtg cta gag cga ctg 103
Leu Gly Ala Gly Arg Leu Phe Glu Met Pro Ala Val Leu Glu Arg Leu
10 15 20
agc cgc tat aat agc acg tcc caa gct ttt gct gag gtg ctg cgg ctg 151
Ser Arg Tyr Asn Ser Thr Ser Gln Ala Phe Ala Glu Val Leu Arg Leu
25 30 35
ccg aag cag cag ctg agg aag ctg ctg tac ccg ctg cag gaa gta gag 199
Pro Lys Gln Gln Leu Arg Lys Leu Leu Tyr Pro Leu Gln Glu Val Glu
40 45 50 55
cgg ttc ctc gcc ccc tac ggg agg caa gac ctt cac ctg cgt atc ttt 247
Arg Phe Leu Ala Pro Tyr Gly Arg Gln Asp Leu His Leu Arg Ile Phe
60 65 70
gac cca agc ccg rag gac ata gcc agg gcg gac aac atc ttc acg gcc 295
Asp Pro Ser Pro Xaa Asp Ile Ala Arg Ala Asp Asn Ile Phe Thr Ala
75 80 85
act gaa cgg aac cgc atc gac tac gtc agc tcc gcc gtc cgt atc gam 343
Thr Glu Arg Asn Arg Ile Asp Tyr Val Ser Ser Ala Val Arg Ile Xaa
90 95 100
cac gcc ccg gac ctt ccg cgg cca gag gtg tgt ttt ata ggc ag 387
His Ala Pro Asp Leu Pro Arg Pro Glu Val Cys Phe Ile Gly
105 110 115

<210> 2141

<211> 383

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 42..383

<400> 2141

agttgcgaca gagtgtgggg ctgctgacaa atgaactggc c atg gag aag gag gcc 56
Met Glu Lys Glu Ala
1 5
aca gag aag ctg cgg aag ctc ctg gcc tcc cag agc agc ggt ctc cga 104
Thr Glu Lys Leu Arg Lys Leu Leu Ala Ser Gln Ser Ser Gly Leu Arg
10 15 20
ggg ctg tgg gac tgc ctg ccc gca gac cta gtg ggc gag agg agt gca 152
Gly Leu Trp Asp Cys Leu Pro Ala Asp Leu Val Gly Glu Arg Ser Ala
25 30 35
caa agc aaa gca gcg gag tcc ctg gag gag ctg cgg gcc tgc atc agc 200
Gln Ser Lys Ala Ala Glu Ser Leu Glu Glu Leu Arg Ala Cys Ile Ser
40 45 50
acc ctg gtg gat cgg cac cgg gag gcc cag cag gtg ctg gct cgg ctg 248
Thr Leu Val Asp Arg His Arg Glu Ala Gln Gln Val Leu Ala Arg Leu

55	60	65	
caa gaa gaa aac cag	cag ttg cgg ggg tcc ttg tcc ccg tgt agg gag		296
Gln Glu Glu Asn Gln	Gln Leu Arg Gly Ser Leu Ser Pro Cys Arg Glu		
70	75	80	85
cca ggc acc tcc tta aag gcc cca gca tcc ccc	caa gtg gcc gyn nkg		344
Pro Gly Thr Ser Leu	Lys Ala Pro Ala Ser Pro Gln Val Ala Xaa Xaa		
90	95	100	
gag caa gac ctg ggg aag ctg gag gaa gag ctg cgg gca			383
Glu Gln Asp Leu Gly Lys Leu Glu Glu Leu Arg Ala			
105	110		

<210> 2142
 <211> 248
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 55..246

<400> 2142	
aaccactgag tccagaagca agacctgtga gagtgcacag tgccacttcg cccc atg	57
	Met
	1
gct gaa gat ggt ttg ccc aaa att tat tct cat cct cca aca gaa agc	105
Ala Glu Asp Gly Leu Pro Lys Ile Tyr Ser His Pro Pro Thr Glu Ser	
5	10
agt aaa aca cca amt gca gca acc att ttc ttt ggg gct gac aat gct	153
Ser Lys Thr Pro Xaa Ala Ala Thr Ile Phe Phe Gly Ala Asp Asn Ala	
20	25
att ccc aaa tca gaa aca act att act tca gaa gga gac cac gtc act	201
Ile Pro Lys Ser Glu Thr Thr Ile Thr Ser Glu Gly Asp His Val Thr	
35	40
tca gta aat gaa tat atg cta gaa agc gat ttt tca aca act aca ga	248
Ser Val Asn Glu Tyr Met Leu Glu Ser Asp Phe Ser Thr Thr Thr	
50	55
	60

<210> 2143
 <211> 227
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 55..225

<400> 2143	
attcaggcgc acgggctccg ggccctgata gatgggggtgc ggggacggag acaa atg	57
	Met
	1
acg gcc ttt ggg ctc gga ata ccc acc ttt ctg gta atg cag ccc agc	105
Thr Ala Phe Gly Leu Gly Ile Pro Thr Phe Leu Val Met Gln Pro Ser	

	5		10		15	
ggg tcc cag cct cgt ttt cca rcc ctc act caa aat gga gtc gct ctg						153
Gly Ser Gln Pro Arg Phe Pro Xaa Leu Thr Gln Asn Gly Val Ala Leu						
	20		25		30	
gtt cga acg cct ctg aca agt gtg tac cta cgt gtc agg ccc atc ctt						201
Val Arg Thr Pro Leu Thr Ser Val Tyr Leu Arg Val Arg Pro Ile Leu						
	35		40		45	
cct gca ggc ctt tgt ctt ggt gtc ac						227
Pro Ala Gly Leu Cys Leu Gly Val						
50		55				

<210> 2144
 <211> 267
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 55..267

<400> 2144	
atttttttct tgggttccg ttcttggtcc atgtgagaga agctggctgc tgaa atg	57
	Met
	1
act gcg aac cgg ctt gca gag agc ctt ctg gct ttg agc caa cag gaa	105
Thr Ala Asn Arg Leu Ala Glu Ser Leu Leu Ala Leu Ser Gln Gln Glu	
	5
	10
	15
gaa cta gcg gat ttg cca aaa gac tac ctc ttg agt gag agt gaa gat	153
Glu Leu Ala Asp Leu Pro Lys Asp Tyr Leu Leu Ser Glu Ser Glu Asp	
	20
	25
	30
gag ggg gac aat gat gga gag aga aag cat caa aag ctt ctg gaa gca	201
Glu Gly Asp Asn Asp Gly Glu Arg Lys His Gln Lys Leu Leu Glu Ala	
	35
	40
	45
atc agt tcc ctt gat gga aag aat agg cgg aaa ttg gct gag agg tct	249
Ile Ser Ser Leu Asp Gly Lys Asn Arg Arg Lys Leu Ala Glu Arg Ser	
50	55
	60
	65
gag gct agt ctg aag gtg	267
Glu Ala Ser Leu Lys Val	
	70

<210> 2145
 <211> 282
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 127..282

<400> 2145	
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ggcctgggaa gggctcgccg ggtgccaaat gagctgtcct aactctgcg ggctgcagct	120

tcctgc atg atg ctg ggg agc ttg gcg cct gac cca gga tct aga agg 168
Met Met Leu Gly Ser Leu Ala Pro Asp Pro Gly Ser Arg Arg

1 5 10
cac tct ggg cag gcc gcg ctc cgc cca cga agg tac cca acc ctc tgg 216
His Ser Gly Gln Ala Ala Leu Arg Pro Arg Arg Tyr Pro Thr Leu Trp
15 20 25 30
gat aga tgc agg aag cga tgg tta aga ccc att ttc acc caa ctt ctc 264
Asp Arg Cys Arg Lys Arg Trp Leu Arg Pro Ile Phe Thr Gln Leu Leu
35 40 45
gcg gca gtc tgg ctt acc 282
Ala Ala Val Trp Leu Thr
50

<210> 2146
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 127..315

<400> 2146
ttccatttag cgtgcctaac atcctacctt gccttctatg agtctttctt ctaatactac 60
acctctgcct tattttagtt cagggtttca ctaagtaacc cctacattaa taaatgagta 120
tggata atg cta ata ttt gag caa tac aga gga tta aga gat caa gat 168
Met Leu Ile Phe Glu Gln Tyr Arg Gly Leu Arg Asp Gln Asp
1 5 10
act tca ctg cct att agc cta ata ggg ata cct act ttc ttt caa atg 216
Thr Ser Leu Pro Ile Ser Leu Ile Gly Ile Pro Thr Phe Phe Gln Met
15 20 25 30
cca aaa att cac att aga aac ata atc cag ata tgt gtk att tta tat 264
Pro Lys Ile His Ile Arg Asn Ile Ile Gln Ile Cys Val Ile Leu Tyr
35 40 45
ata tat ata caa aac agt aaa tgg ttt ctt aaa att att gct att ttt 312
Ile Tyr Ile Gln Asn Ser Lys Trp Phe Leu Lys Ile Ile Ala Ile Phe
50 55 60
caa cc 317
Gln

<210> 2147
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 98..406

<400> 2147
attctcgca gaagtccagg ggtggccgtg atggcggcgg caggagcagg acctggccag 60
gaagcgggtg ccgggccttg cccaggagcg gtcgcaa atg caa cag ggg cag aag 115

	Met	Gln	Gln	Gly	Gln	Lys	
	1			5			
agg ggg gag atg aag ccg gtg gca gcg gga gca gcc gct cct cct gga							163
Arg Gly Glu Met Lys Pro Val Ala Ala Gly Ala Ala Pro Pro Gly							
	10			15		20	
gag ggg atc tct gct gct ccg aca gtt gag ccc agt tcc ggg gag gct							211
Glu Gly Ile Ser Ala Ala Pro Thr Val Glu Pro Ser Ser Gly Glu Ala							
	25			30		35	
gaa ggc ggg gag gca aac ntg gtc gat gta agc ggt ggc ttg gag aca							259
Glu Gly Gly Glu Ala Asn Xaa Val Asp Val Ser Gly Gly Leu Glu Thr							
	40			45		50	
gaa tca tct aat gga aaa gat aca cta gaa ggt gct ggg gat aca tca							307
Glu Ser Ser Asn Gly Lys Asp Thr Leu Glu Gly Ala Gly Asp Thr Ser							
	55			60		65	70
gag gtg atg gat act cag gcg ggc tcc gtg gat gaa gag aat ggc cga							355
Glu Val Met Asp Thr Gln Ala Gly Ser Val Asp Glu Glu Asn Gly Arg							
	75			80		85	
cag ttg ggt gag gta gag ctg caa tgt ggg att tgt aca aat ggt tca							403
Gln Leu Gly Glu Val Glu Leu Gln Cys Gly Ile Cys Thr Asn Gly Ser							
	90			95		100	
cgg c							407
Arg							

<210> 2148
 <211> 363
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 103..363

<400> 2148	
atttctgtgc gccgagctcc gccccacgag cacctgtttc cgagcggaga gcgcggggccg	60
ttttctttcc tgggtgtcccg tcgcggccttg ggacccggca ag atg ggc aag aag	114
	Met Gly Lys Lys
	1
ggc aag aag gag aag aag ggc cgc ggc gcg gag aag acg gcc gcc aag	162
Gly Lys Lys Glu Lys Lys Gly Arg Gly Ala Glu Lys Thr Ala Ala Lys	
	5 10 15 20
atg gag aag aag gtg tct aag cgc tcg cgg aag gag gag gaa gac ctg	210
Met Glu Lys Lys Val Ser Lys Arg Ser Arg Lys Glu Glu Glu Asp Leu	
	25 30 35
gaa gcg ctc ata gcc cat ttc cag aca ctc gat gcc aag agg act cag	258
Glu Ala Leu Ile Ala His Phe Gln Thr Leu Asp Ala Lys Arg Thr Gln	
	40 45 50
act gtg gaa ctt ccg tgc ccc cca ccc tca cca agg tta aat gcc tcc	306
Thr Val Glu Leu Pro Cys Pro Pro Pro Ser Pro Arg Leu Asn Ala Ser	
	55 60 65
ctc tcg gtt cat cct gag aaa gat gag tta atc ctt ttt gga gtg aat	354
Leu Ser Val His Pro Glu Lys Asp Glu Leu Ile Leu Phe Gly Val Asn	
	70 75 80
att tca acg	363

Ile Ser Thr
85

<210> 2149
<211> 480
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 201..479

<400> 2149
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tggcaattgg ttttcggctt tggcgctcgg ggtgmntctt ctcaaagcc ttctcatccc 120
cacataccat tccacagatt ttgaagtaca cggaaactgg cttgctatna ctcacagttt 180
gccaatatca cagtgggtatt atg agg sca mct tca gak tng acg ttg gat tac 233
Met Arg Xaa Xaa Ser Xaa Xaa Thr Leu Asp Tyr
1 5 10
ccc cct ttc ttt gca tgg ttt gag tat atc ctg tca cat gtt gcc aaa 281
Pro Pro Phe Phe Ala Trp Phe Glu Tyr Ile Leu Ser His Val Ala Lys
15 20 25
tat ttt gat caa gaa atg ctg aat gtc cat aat ttg aat tac tcc agc 329
Tyr Phe Asp Gln Glu Met Leu Asn Val His Asn Leu Asn Tyr Ser Ser
30 35 40
tca agg acc tta ctt ttc cag aga ttt tcc gtc atc ttt atg gat gta 377
Ser Arg Thr Leu Leu Phe Gln Arg Phe Ser Val Ile Phe Met Asp Val
45 50 55
ctc ttt gtg tat gct gtc cgt gag tgc tgt aaa tgc att gat gga aaa 425
Leu Phe Val Tyr Ala Val Arg Glu Cys Cys Lys Cys Ile Asp Gly Lys
60 65 70 75
aaa gtg ggt aaa rga act tac aga aaa rgc caa aat tta ttc tgt cgg 473
Lys Val Gly Lys Xaa Thr Tyr Arg Lys Xaa Gln Asn Leu Phe Cys Arg
80 85 90
tat tac t 480
Tyr Tyr

<210> 2150
<211> 621
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 207..620

<400> 2150
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tgagggtggg tagcgtcaga aagagcgggg cagggggcgg gccagcttcg ccgcgggaaa 120
agaacgggag gcggagtgtc cgcagcgcgc acgccaacga aagtcaatgg cggctctggag 180
agactggcgg aagctagctt tgcaat atg gcg gcc gag gcg gac gga ccg ctt 233
Met Ala Ala Glu Ala Asp Gly Pro Leu

aaa	cgg	ctg	ctc	gtg	ccg	att	ctt	tta	cct	gag	aaa	tgc	tac	gac	caa	281
Lys	Arg	Leu	Leu	Val	Pro	Ile	Leu	Leu	Pro	Glu	Lys	Cys	Tyr	Asp	Gln	
10					15					20					25	
ctt	ttc	gtt	cag	tgg	gac	ttg	ctt	cac	gtc	ccc	tgc	ctc	aag	att	ctc	329
Leu	Phe	Val	Gln	Trp	Asp	Leu	Leu	His	Val	Pro	Cys	Leu	Lys	Ile	Leu	
				30					35					40		
ctc	agc	aaa	ggc	ctg	ggg	ctg	ggc	att	gtg	gct	ggc	tca	ctt	cta	gta	377
Leu	Ser	Lys	Gly	Leu	Gly	Leu	Gly	Ile	Val	Ala	Gly	Ser	Leu	Leu	Val	
			45					50					55			
aag	ctg	ccc	cag	gtg	ttt	aaa	atc	ctg	gga	gcc	aag	agt	gct	gaa	ggg	425
Lys	Leu	Pro	Gln	Val	Phe	Lys	Ile	Leu	Gly	Ala	Lys	Ser	Ala	Glu	Gly	
		60					65					70				
ttg	agt	ctc	cag	tct	gta	atg	ctg	gag	cta	gtg	gca	ttg	act	ggg	acc	473
Leu	Ser	Leu	Gln	Ser	Val	Met	Leu	Glu	Leu	Val	Ala	Leu	Thr	Gly	Thr	
	75					80					85					
atg	gtc	tac	agc	atc	act	aac	aac	ttc	cca	ttc	agc	tct	tgg	ggt	gaa	521
Met	Val	Tyr	Ser	Ile	Thr	Asn	Asn	Phe	Pro	Phe	Ser	Ser	Trp	Gly	Glu	
90					95					100					105	
gcc	tta	ttc	ctg	atg	ctc	cag	acg	atc	acc	atc	tgc	ttc	ctg	gtc	atg	569
Ala	Leu	Phe	Leu	Met	Leu	Gln	Thr	Ile	Thr	Ile	Cys	Phe	Leu	Val	Met	
				110					115					120		
cac	tac	aga	gga	cag	act	gtg	aaa	ggg	gtc	gct	ttc	ctc	gct	tgc	tac	617
His	Tyr	Arg	Gly	Gln	Thr	Val	Lys	Gly	Val	Ala	Phe	Leu	Ala	Cys	Tyr	
			125					130					135			
ggc	c															621
Gly																

<210> 2151
 <211> 473
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 147..473

<400> 2151
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 ctccagagtt aagtggctgt cctcgactgt gccatacag cagccagctt tcttcctkaa 120
 taactgcccg ttcgaagagt gcgagg atg tcc aag cgg cac cgg ttg gac cta 173
 Met Ser Lys Arg His Arg Leu Asp Leu

ggg	gag	gat	tac	ccc	tct	ggc	aag	aag	cgt	gcg	ggg	acc	gat	ggg	aag	221
Gly	Glu	Asp	Tyr	Pro	Ser	Gly	Lys	Lys	Arg	Ala	Gly	Thr	Asp	Gly	Lys	
10					15					20					25	
gat	cga	gat	cga	gac	cgg	gat	cgt	gaa	gat	cgg	tct	aaa	gat	cga	gac	269
Asp	Arg	Asp	Arg	Asp	Arg	Asp	Arg	Glu	Asp	Arg	Ser	Lys	Asp	Arg	Asp	
				30					35					40		
cga	gaa	cgt	gat	aga	gga	gat	aga	gag	cga	gag	agg	gag	aaa	gaa	aag	317
Arg	Glu	Arg	Asp	Arg	Gly	Asp	Arg	Glu	Arg	Glu	Arg	Glu	Lys	Glu	Lys	
			45					50					55			
gag	aag	gag	ttg	cga	gct	tca	aca	aat	gct	atg	ctt	atc	agt	gct	gga	365

Glu Lys Glu Leu Arg Ala Ser Thr Asn Ala Met Leu Ile Ser Ala Gly
60 65 70
tta cca cct ttg aaa gct tcc cat tca gct cac tca acc cac tca gca 413
Leu Pro Pro Leu Lys Ala Ser His Ser Ala His Ser Thr His Ser Ala
75 80 85
cat tca acg cat tca aca cat tct gct cat tca acg cat gcc gga cat 461
His Ser Thr His Ser Thr His Ser Ala His Ser Thr His Ala Gly His
90 95 100 105
gca ggt cac aca 473
Ala Gly His Thr

<210> 2152
<211> 340
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 133..339

<400> 2152
gcttctcctt tywgtgttcc ggccgatccc acctctcctc gancctggac gtctaccttc 60
cggaggccca catcttgccc actccgcgcg cggggctagc gcgggtttca gcgacgggag 120
ccctcaaggg ac atg gca act aca gcg gcg ccg gcg ggc ggc gcc cga aat 171
Met Ala Thr Thr Ala Ala Pro Ala Gly Gly Ala Arg Asn
1 5 10
gga gct ggc ccg gaa tgg gga ggg ttc gaa gaa aac atc cag ggc gga 219
Gly Ala Gly Pro Glu Trp Gly Gly Phe Glu Glu Asn Ile Gln Gly Gly
15 20 25
ggc tca gct gtg att gac atg gag aac atg gat gat acc tca ggc tct 267
Gly Ser Ala Val Ile Asp Met Glu Asn Met Asp Asp Thr Ser Gly Ser
30 35 40 45
agc ttc gag gat atg ggt gag ctg cat srg cgc ctg cgc gag gaa gaa 315
Ser Phe Glu Asp Met Gly Glu Leu His Xaa Arg Leu Arg Glu Glu Glu
50 55 60
gta gac gct gat gca gct gat gca g 340
Val Asp Ala Asp Ala Ala Asp Ala
65

<210> 2153
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 155..415

<400> 2153
agaggtgtga cgtcatcgcc gcggggcgga ggcgacagtg tctagcggga gctccgcgtg 60
tagctacgcc ggccgcctgg ctttgagaca acgtgattct ccgcagctgg tcgcctaccc 120
gtgatgttct gccacgtcg agacctgagc tgaa atg gca gac gat ctc gga gac 175

	Met	Ala	Asp	Asp	Leu	Gly	Asp	
	1				5			
gag tgg tgg gag aac cag ccg act gga gca ggc agc agc cca gaa gca								223
Glu Trp Trp Glu Asn Gln Pro Thr Gly Ala Gly Ser Ser Pro Glu Ala								
	10				15		20	
tca gat ggt gaa gga gaa gga gac aca gaa gtg atg cag cag gag aca								271
Ser Asp Gly Glu Gly Glu Gly Asp Thr Glu Val Met Gln Gln Glu Thr								
	25				30		35	
gtt cca gtt cct gta cct tca gag aaa acc aaa cag cct aaa gaa tgt								319
Val Pro Val Pro Val Pro Ser Glu Lys Thr Lys Gln Pro Lys Glu Cys								
	40			45		50	55	
ttt ttg ata caa cca aag gaa aga aaa gag aat acc acc aag acc agg								367
Phe Leu Ile Gln Pro Lys Glu Arg Lys Glu Asn Thr Thr Lys Thr Arg								
		60			65		70	
aaa aga aga aag aag aaa att act gak gtt ctt gca aaa tca gar cca a								416
Lys Arg Arg Lys Lys Lys Ile Thr Xaa Val Leu Ala Lys Ser Glu Pro								
		75			80		85	

<210> 2154
 <211> 355
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 133..354

<400> 2154	
aaasccttcc cgncttccag cccasacacc agccagccag tggcgttcct ggctcctcgg	60
gattttcctt ttctccgaa gctgctgatt catccccagg ctggagtcag gctcagctgt	120
ggggctggga gc atg ggc tct cag gct gct gct gag tgg agg aac tgg gcc	171
Met Gly Ser Gln Ala Ala Ala Glu Trp Arg Asn Trp Ala	
	1 5 10
tcc tgg gag gtg tcc tcc agc ctc tct gga tgc tcc atg ggg tgc tts	219
Ser Trp Glu Val Ser Ser Ser Leu Ser Gly Cys Ser Met Gly Cys Xaa	
	15 20 25
aag gat gac cgc atc gtc ttc tgg act tgg atg ttc tcc acc tac ttc	267
Lys Asp Asp Arg Ile Val Phe Trp Thr Trp Met Phe Ser Thr Tyr Phe	
	30 35 40 45
atg gag aaa tgg gct ccc cgg cag gac gac atg ctt ttc tat gtg cgc	315
Met Glu Lys Trp Ala Pro Arg Gln Asp Asp Met Leu Phe Tyr Val Arg	
	50 55 60
cgg aag ctg gcg tam tcc ggc agc gaa agc gnt gca gac g	355
Arg Lys Leu Ala Xaa Ser Gly Ser Glu Ser Xaa Ala Asp	
	65 70

<210> 2155
 <211> 438
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 112..438

<400> 2155

aagcgcacgc tgaggaggat cggcgggcgg tgagggggaa gcaagtctgg tctctgtgat 60
tgaagaagtc ggctctgggc tccagtgcgg gaatcacaca catacctcag a atg ccg 117
Met Pro
1
ggt cta agt tgt aga ttt tat caa cac aaa ttt cct gag gtg gaa gat 165
Gly Leu Ser Cys Arg Phe Tyr Gln His Lys Phe Pro Glu Val Glu Asp
5 10 15
gta gtg atg gtg aat gtc aga tcc att gct gaa atg ggg gct tat gtc 213
Val Val Met Val Asn Val Arg Ser Ile Ala Glu Met Gly Ala Tyr Val
20 25 30
agc ttg ctg gaa tac aac aac att gaa ggc atg att ctt ctt agt gaa 261
Ser Leu Leu Glu Tyr Asn Asn Ile Glu Gly Met Ile Leu Leu Ser Glu
35 40 45 50
tta tcc aga agg cgt atc cgt tct atc aac aaa ctc atc cga att ggc 309
Leu Ser Arg Arg Arg Ile Arg Ser Ile Asn Lys Leu Ile Arg Ile Gly
55 60 65
agg aat gag tgt gtg gtt gtc att agg gtg gac aaa gaa aaa gga tat 357
Arg Asn Glu Cys Val Val Val Ile Arg Val Asp Lys Glu Lys Gly Tyr
70 75 80
att gat ttg tca 'aaa aga aga gtt tct cca gag gaa gca atc aaa tgt 405
Ile Asp Leu Ser Lys Arg Arg Val Ser Pro Glu Glu Ala Ile Lys Cys
85 90 95
gaa gac aaa ttc aca aaa tcc aaa act gtt tat 438
Glu Asp Lys Phe Thr Lys Ser Lys Thr Val Tyr
100 105

<210> 2156

<211> 179

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 20..178

<400> 2156

atggacctaa tcaggcaaaa atg tta ana cat ttt aaa tgg tta aaa tca ggc 52
Met Leu Xaa His Phe Lys Trp Leu Lys Ser Gly
1 5 10
ttt aag gat ttg gat tca ttg ttt tat ttg aaa tat tta gca ttc tca 100
Phe Lys Asp Leu Asp Ser Leu Phe Tyr Leu Lys Tyr Leu Ala Phe Ser
15 20 25
tgg cat caa gta tgt ata cat gta tac tgt atg aag cga tat att tat 148
Trp His Gln Val Cys Ile His Val Tyr Cys Met Lys Arg Tyr Ile Tyr
30 35 40
tat ata ttg cta aat gta tat tca aaa agc t 179
Tyr Ile Leu Leu Asn Val Tyr Ser Lys Ser
45 50

<210> 2157
 <211> 432
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 196..432

<400> 2157
 ataaagggca cagcncanng gtacgtggat cgcggtgcsn agactgaggt tagaaggcac 60
 argtggcgag atgagccggg taccagcggt cctgagcgcg gccgaggtgg aggaacacct 120
 ccgcagctcc agcctctctca tcccgcctct agagacggcc ctggccaact tctccagcgg 180
 tcccgaagag gggtc atg cag ccc gtg cgc acc gtg gtg ccg gtg acc aag 231
 Met Gln Pro Val Arg Thr Val Val Pro Val Thr Lys
 1 5 10
 cac agg ggc tac ctg ggg gtc atg ccc gcc tac agt gct gca gag gat 279
 His Arg Gly Tyr Leu Gly Val Met Pro Ala Tyr Ser Ala Ala Glu Asp
 15 20 25
 gca ctg acc acc aag ttg gtc acc ttc tac gag gac cgc ggc atc acc 327
 Ala Leu Thr Thr Lys Leu Val Thr Phe Tyr Glu Asp Arg Gly Ile Thr
 30 35 40
 tcg gtc gtc cct tcc cac cag gct act gtg cta ctc ttt gag ccc agc 375
 Ser Val Val Pro Ser His Gln Ala Thr Val Leu Leu Phe Glu Pro Ser
 45 50 55 60
 aat ggc acc ctg ctg gcg gtc atg gat gga aat gtc ata act gca aag 423
 Asn Gly Thr Leu Leu Ala Val Met Asp Gly Asn Val Ile Thr Ala Lys
 65 70 75
 aga aca gct 432
 Arg Thr Ala

<210> 2158
 <211> 472
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 207..470

<400> 2158
 aatcaggatc cggagacgga aatgtccgaa gccgcagtac ttgaccctgt attttgggag 60
 tcgaacggag aatggaaact gaaagtggaa atcaggaaaa ggtaatggaa gaagaaagca 120
 ctgaaaagaa aaaagaagnt tgaaaaaaag aaacggtcac gagttaaaca gatgttgata 180
 tatkactact tgtgtctttt aacaaa atg aaa aaa ttg act act gat ggg aag 233
 Met Lys Lys Leu Thr Thr Asp Gly Lys
 1 5
 tta att gcc aga gca ttg aga agt tca gct gtt gta gag ctt gat ttg 281
 Leu Ile Ala Arg Ala Leu Arg Ser Ser Ala Val Val Glu Leu Asp Leu
 10 15 20 25
 gaa ggc acc aga atc cgg agg aaa aaa cct ctg ggg gaa aga cca aag 329
 Glu Gly Thr Arg Ile Arg Arg Lys Lys Pro Leu Gly Glu Arg Pro Lys

	30		35		40	
gat gag gat gaa cgc aca gtg tat gtg gag tta ctt ccc aaa aat gtt						377
Asp Glu Asp Glu Arg Thr Val Tyr Val Glu Leu Leu Pro Lys Asn Val						
	45		50		55	
aat cac agc tgg att gaa aga gta ttt ggg aaa tgt ggc aat gtt gtt						425
Asn His Ser Trp Ile Glu Arg Val Phe Gly Lys Cys Gly Asn Val Val						
	60		65		70	
tat ata agt ata cca cat tat aag tct act gga gat cca aag gga tt						472
Tyr Ile Ser Ile Pro His Tyr Lys Ser Thr Gly Asp Pro Lys Gly						
	75		80		85	

<210> 2159
 <211> 274
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 105..272

<400> 2159	
gaacgtgatc tcgggtttgt cgggctgaaa tgtggcgggt ctcggaaggt tccgacctca	60
gtaaagagag ctaacgtgta ttcttctttt tcttagatgc tgag atg aat cgt cac	116
	Met Asn Arg His
	1
ctg tgt gtt tgg ctt ttt aga cat cca tct ctt aat ggt tac ctc cag	164
Leu Cys Val Trp Leu Phe Arg His Pro Ser Leu Asn Gly Tyr Leu Gln	
	5 10 15 20
tgt cac atc cag ctc cat tct cat caa ttt aga cag ata cat ctt gat	212
Cys His Ile Gln Leu His Ser His Gln Phe Arg Gln Ile His Leu Asp	
	25 30 35
aca agg ctg caa gtt ttt aga caa aac agg aat tgc att ctt cat ctg	260
Thr Arg Leu Gln Val Phe Arg Gln Asn Arg Asn Cys Ile Leu His Leu	
	40 45 50
tta agt aag aat cg	274
Leu Ser Lys Asn	
	55

<210> 2160
 <211> 434
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 88..432

<400> 2160	
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gtccctgctg gccacccac tgcgacc atg ttc gtt ccc tgc ggg gag tgc gcc	114
	Met Phe Val Pro Cys Gly Glu Ser Ala
	1 5

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ccc gac ctt gcc ggc ttc acc ctc cta atg cca gca gta tct gtt gga      162
Pro Asp Leu Ala Gly Phe Thr Leu Leu Met Pro Ala Val Ser Val Gly
10                      15                      20                      25
aat gtt ggc cag ctt gca atg gat ctg att att tct aca ctg aat atg      210
Asn Val Gly Gln Leu Ala Met Asp Leu Ile Ile Ser Thr Leu Asn Met
                      30                      35                      40
tct aag att ggt tac ttc tat acc gat tgt ctt gtg cca atg gtt gga      258
Ser Lys Ile Gly Tyr Phe Tyr Thr Asp Cys Leu Val Pro Met Val Gly
                      45                      50                      55
aac aat cca tat gcg acc aca gaa gga aat tca aca gaa ctt agc ata      306
Asn Asn Pro Tyr Ala Thr Thr Glu Gly Asn Ser Thr Glu Leu Ser Ile
                      60                      65                      70
aat gct gaa gtg tat kca ttg cct tca aga aag ctg gtg gct cta cag      354
Asn Ala Glu Val Tyr Xaa Leu Pro Ser Arg Lys Leu Val Ala Leu Gln
                      75                      80                      85
tta aga tcc att ktt att aag tat aaa tcw nag cca ttc tgt gaa aaa      402
Leu Arg Ser Ile Xaa Ile Lys Tyr Lys Ser Xaa Pro Phe Cys Glu Lys
90                      95                      100                      105
ctg ctt tcc tgg gtg aaa gca gtn gct gtg ca      434
Leu Leu Ser Trp Val Lys Ala Val Ala Val
                      110                      115

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<210> 2161
 <211> 367
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 96..365

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<400> 2161
agagaagccg ggagcgggcg aggcggcgcc ggcagagcga tggcaggaat agagttggag      60
cggtgccagc agcaggcgaa cgagggacgg aaatt atg cgt aac aac ttc ggc      113
                      Met Arg Asn Asn Phe Gly
                      1                      5
aag gtc ctg gag cgt ggt gtg aag ctg gcc gaa ctg cag cag cgt tca      161
Lys Val Leu Glu Arg Gly Val Lys Leu Ala Glu Leu Gln Gln Arg Ser
                      10                      15                      20
gac caa ctc ctg gat atg agc tca acc ttc aac aag act aca cag aac      209
Asp Gln Leu Leu Asp Met Ser Ser Thr Phe Asn Lys Thr Thr Gln Asn
                      25                      30                      35
ctg gcc cag aag aag tgc tgg gag aac atc cgt tac cgg atc tgc gtg      257
Leu Ala Gln Lys Lys Cys Trp Glu Asn Ile Arg Tyr Arg Ile Cys Val
                      40                      45                      50
ggg ctg gtg gtg gtt ggt gtc ctg ctc atc atc ctg att gtg ctg ctg      305
Gly Leu Val Val Val Gly Val Leu Leu Ile Ile Leu Ile Val Leu Leu
55                      60                      65                      70
gtc gtc ttt ctc cct cag agc agt gac agc agt agt gcc cac gga ccc      353
Val Val Phe Leu Pro Gln Ser Ser Asp Ser Ser Ser Ala His Gly Pro
                      75                      80                      85
agg atg cag gca tt      367
Arg Met Gln Ala

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90

<210> 2162
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 67..303

<400> 2162
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tttgaa atg cag tgc tac tca ttg agt ttc cyt tgt gag grg att gtg 108
Met Gln Cys Tyr Ser Leu Ser Phe Xaa Cys Glu Xaa Ile Val
1 5 10
tgg cga gga ccc agc aag aca agc tac tat ccc aaa aaa gct act tat 156
Trp Arg Gly Pro Ser Lys Thr Ser Tyr Tyr Pro Lys Lys Ala Thr Tyr
15 20 25 30
atg aac ttc att tct ggt ttc ttt caa att gaa ggt aaa ttc caa gat 204
Met Asn Phe Ile Ser Gly Phe Phe Gln Ile Glu Gly Lys Phe Gln Asp
35 40 45
gaa gct ttt att cta ttc tct gac caa agt gtt ggg aaa aga aag gaa 252
Glu Ala Phe Ile Leu Phe Ser Asp Gln Ser Val Gly Lys Arg Lys Glu
50 55 60
ttt gtt acc att ttc att tct aac ata cta aaa cag aaa aca aaa aac 300
Phe Val Thr Ile Phe Ile Ser Asn Ile Leu Lys Gln Lys Thr Lys Asn
65 70 75
ccc 303
Pro

<210> 2163
<211> 566
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 361..564

<400> 2163
taccagttag cagggkkgat gaggtcctca cccgtgagct catatgctga tgggggagac 60
ctacagcaag caaggagata aataaatata tcaaataagag gtaaatagag tgaagaaaac 120
araacgggct gagragatag tgtgagactg taaggagttt taaattttta aacttgckac 180
tcataattag atakgcaagt ttctgaaatt cgcatagtgc atttcagatg atgagagagg 240
tgacarccgt agmaagtggg agaagtgggt gcggggagat ggggtgagcga tggaggtggc 300
gagcaagttag gagagatgca gggagagtca ggtgacaagm agaragtgtg ctgaggamag 360
atg gcg gac aga cag gcc gct gcc ccc aat ttt tgg tgc tct ttc att 408
Met Ala Asp Arg Gln Ala Ala Ala Pro Asn Phe Trp Cys Ser Phe Ile
1 5 10 15
cct gca ctc agg cac gag gca gac agg aaa gac agg cag tgc tgc ttc 456
Pro Ala Leu Arg His Glu Ala Asp Arg Lys Asp Arg Gln Cys Cys Phe

20	25	30	
gta aca ggc atc ttt ctt gcc cta agt ata cat ctt aga atg tgt gga			504
Val Thr Gly Ile Phe Leu Ala Leu Ser Ile His Leu Arg Met Cys Gly			
35	40	45	
gaa agt cac gct atg gga gca ctt ggg cag gct cag gtg ttc act gta			552
Glu Ser His Ala Met Gly Ala Leu Gly Gln Ala Gln Val Phe Thr Val			
50	55	60	
gta gaa gga gra at			566
Val Glu Gly Xaa			
65			

<210> 2164
 <211> 279
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 109..279

<400> 2164	
tcctctctca gctcccgtt gagatcgagg actgatgggg cacgcttctt tctcggcgc	60
catgctgggtt tcatttcacc tgcattcctg aaagaggcgc tttcctaa atg ttt ttc	117
	Met Phe Phe
	1
caa gta ttc ttc ctt ctc caa ttg cag gat aac tgc ccc cat ctg cca	165
Gln Val Phe Phe Leu Leu Gln Leu Gln Asp Asn Cys Pro His Leu Pro	
5	10
aat tct ggg cag gaa gac ttt gac aag gac ggg att ggc gat gcc tgt	213
Asn Ser Gly Gln Glu Asp Phe Asp Lys Asp Gly Ile Gly Asp Ala Cys	
20	25
gat gat gac gat gac aat gac ggt gtg acc gat gag aag gac aac tgc	261
Asp Asp Asp Asp Asp Asn Asp Gly Val Thr Asp Glu Lys Asp Asn Cys	
	40
cag ctc ctc ttc aat ccc	279
Gln Leu Leu Phe Asn Pro	
55	

<210> 2165
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 <213> Homo sapiens

<220>
 <221> CDS
 <222> 148..351

<400> 2165	
gagaagcgag ccggcggcwg aggaggcgac tgactgagca ggcaccccg ggagcaagga	60
ggcgcggtga actgagcggc ccctgagctg acagatacac tgcgactgg aacggcgagc	120
gagccgacgg gcgagtgagg ggcgcag atg atc acc tcg gcc gct gga att att	174
	Met Ile Thr Ser Ala Ala Gly Ile Ile

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						1					5						
tct	ctt	ctg	gat	gaa	gat	gaa	cca	cag	ctt	aag	gaa	ttt	gca	cta	cac		222
Ser	Leu	Leu	Asp	Glu	Asp	Glu	Pro	Gln	Leu	Lys	Glu	Phe	Ala	Leu	His		
10						15				20					25		
aaa	ttg	aat	gca	gtt	gtt	aat	gac	ttc	tgg	gca	gaa	att	tcc	gag	tcc		270
Lys	Leu	Asn	Ala	Val	Val	Asn	Asp	Phe	Trp	Ala	Glu	Ile	Ser	Glu	Ser		
				30					35					40			
gta	gac	aaa	ata	gag	gtt	tta	tac	gaa	gat	gaa	ggg	ttc	cgg	agn	ygg		318
Val	Asp	Lys	Ile	Glu	Val	Leu	Tyr	Glu	Asp	Glu	Gly	Phe	Arg	Xaa	Xaa		
		45						50					55				
cag	ttt	gca	gcc	tta	gtg	gca	tct	aaa	gta	ttt	t						352
Gln	Phe	Ala	Ala	Leu	Val	Ala	Ser	Lys	Val	Phe							
		60					65										

<210> 2166
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 97..351

<400> 2166	
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gttggtggct ggacctctg cgacttccga gttgcg atg ctg tac ttc tct ttg	114
	Met Leu Tyr Phe Ser Leu
	1 5
ttt tgg gcg gct cgg cct ctg cag aga tgt ggg cag ctg gtc agg atg	162
Phe Trp Ala Ala Arg Pro Leu Gln Arg Cys Gly Gln Leu Val Arg Met	
	10 15 20
gcc att cgg gct cag cac agc aac gca gcc cag act cag act ggg gaa	210
Ala Ile Arg Ala Gln His Ser Asn Ala Ala Gln Thr Gln Thr Gly Glu	
	25 30 35
gca aac agg ggc tgg aca ggc cag gag agc ctg tcg gac agt gat cct	258
Ala Asn Arg Gly Trp Thr Gly Gln Glu Ser Leu Ser Asp Ser Asp Pro	
	40 45 50
gag atg tgg gag ttg ctg cag agg gag aag gac agg cag tgt cgt ggc	306
Glu Met Trp Glu Leu Leu Gln Arg Glu Lys Asp Arg Gln Cys Arg Gly	
	55 60 65 70
ctg nag ctg att gcc tca gag aac ttc tgc agc cga gct gcg ctg g	352
Leu Xaa Leu Ile Ala Ser Glu Asn Phe Cys Ser Arg Ala Ala Leu	
	75 80 85

<210> 2167
 <211> 350
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 65..349

<400> 2167
 gcctgggagg cgcagacgag gcctgaggcg gcggcgag gcagtatggt ttgaagtgg 60
 gaac atg gat ttt tct cgg ctt cac atg tac agt cct ccc cag tgt gtg 109
 Met Asp Phe Ser Arg Leu His Met Tyr Ser Pro Pro Gln Cys Val
 1 5 10 15
 ccg gag aac acg ggc tac acg tat gcg ctc agt tcc agc tat tct tca 157
 Pro Glu Asn Thr Gly Tyr Thr Tyr Ala Leu Ser Ser Ser Tyr Ser Ser
 20 25 30
 gat gct ctg gat ttt gag acg gag cac aaa ttg gac cct gta ttt gat 205
 Asp Ala Leu Asp Phe Glu Thr Glu His Lys Leu Asp Pro Val Phe Asp
 35 40 45
 tct cca cgg atg tcc cgc cgt agt ttg cgc ctg gcc acg aca gca tgc 253
 Ser Pro Arg Met Ser Arg Arg Ser Leu Arg Leu Ala Thr Thr Ala Cys
 50 55 60
 acc ctg ggg gat ggt gag gct gtg ggt gcc gac agc ggc acc agc agc 301
 Thr Leu Gly Asp Gly Glu Ala Val Gly Ala Asp Ser Gly Thr Ser Ser
 65 70 75
 gct gtc tcc ctg aag aac cga gcg gcc aga aca aca aaa cag cgc aga a 350
 Ala Val Ser Leu Lys Asn Arg Ala Ala Arg Thr Thr Lys Gln Arg Arg
 80 85 90 95

<210> 2168
 <211> 339
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> CDS
 <222> 150..338

<400> 2168
 accctcccta atttccactc cccccacccc atttcgctg ccgcggtcgg gtccgcggcc 60
 tgcgctgtag cggtcgcccgc cgttccctgg aagtagcaac ttccctaccc caccacagtc 120
 ctggtccccg tccagccgct gacgtgaag atg agc agc tca gag gag gtg tcc 173
 Met Ser Ser Ser Glu Glu Val Ser
 1 5
 tgg att tcc tgg ttc tgt ggg ctc cgt ggc aat gaa ttc ttc tgt gaa 221
 Trp Ile Ser Trp Phe Cys Gly Leu Arg Gly Asn Glu Phe Phe Cys Glu
 10 15 20
 gtg gat gaa gac tac atc cag gac aaa ttt aat ctt act gga ctc aat 269
 Val Asp Glu Asp Tyr Ile Gln Asp Lys Phe Asn Leu Thr Gly Leu Asn
 25 30 35 40
 gag cag gtc cct cac tat cga caa gct cta gac atg atc ttg gac ctg 317
 Glu Gln Val Pro His Tyr Arg Gln Ala Leu Asp Met Ile Leu Asp Leu
 45 50 55
 gag cct gat gaa gaa ctg gaa g 339
 Glu Pro Asp Glu Glu Leu Glu
 60

<210> 2169
 <211> 216
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 37..216

<400> 2169

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gagtgcgcgcg tcgtcgccgc cgccaccact gtcgcc atg aac agt gtg ggg gag      54
                               Met Asn Ser Val Gly Glu
                               1           5
gca tgc acg gac atg aag cgc gag tac gac cag tgc ttc aat cgc tgg      102
Ala Cys Thr Asp Met Lys Arg Glu Tyr Asp Gln Cys Phe Asn Arg Trp
                               10           15           20
ttc gcc gag aaa ttt ctc aag ggg gac agc tcc ggg gac ccg tgc acc      150
Phe Ala Glu Lys Phe Leu Lys Gly Asp Ser Ser Gly Asp Pro Cys Thr
                               25           30           35
gac ctc ttc aag cgc tac cag cag tgt gtw cag aaa gca ata aag gag      198
Asp Leu Phe Lys Arg Tyr Gln Gln Cys Val Gln Lys Ala Ile Lys Glu
                               40           45           50
aaa gag att cct att gaa
Lys Glu Ile Pro Ile Glu
55                               60

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<210> 2170

<211> 425

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 77..424

<400> 2170

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atttcgggct ctgcgcagtc tgggtgggag cgcgccaaat ttctcccctg aagcagaggt      60
ggtagccaac ggctcc atg tct ctg agg agc ggc ggg cgg cgg cgc gcg gac      112
                               Met Ser Leu Arg Ser Gly Gly Arg Arg Arg Ala Asp
                               1           5           10
ccw ggc gcg gat ggc gag gcc agc agg gat gat ggc gcc act tcc tca      160
Pro Gly Ala Asp Gly Glu Ala Ser Arg Asp Asp Gly Ala Thr Ser Ser
                               15           20           25
gtt tgc gca ctc aag cgc ctg gaa cgg agt cag tgg acg gat aag atg      208
Val Ser Ala Leu Lys Arg Leu Glu Arg Ser Gln Trp Thr Asp Lys Met
                               30           35           40
gat ttg cgg ttt ggt ttt gag cgg ctg aag gag cct ggt gag aag aca      256
Asp Leu Arg Phe Gly Phe Glu Arg Leu Lys Glu Pro Gly Glu Lys Thr
                               45           50           55           60
ggc tgg ctc att aac atg cat cct acc gag att tta gat gaa gat aag      304
Gly Trp Leu Ile Asn Met His Pro Thr Glu Ile Leu Asp Glu Asp Lys
                               65           70           75
cgc tta ggc agt gca gtg gat tac tac ttt att caa gat gac gga agc      352
Arg Leu Gly Ser Ala Val Asp Tyr Tyr Phe Ile Gln Asp Asp Gly Ser
                               80           85           90

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aga wtt aag gtg gmw ttg gcc tat aaa acc gta ttt cta caa ttg cga 400
 Arg Xaa Lys Val Xaa Leu Ala Tyr Lys Thr Val Phe Leu Gln Leu Arg
 95 100 105

cca gaa agg gtt gtg agc gag aaa g 425
 Pro Glu Arg Val Val Ser Glu Lys
 110 115

<210> 2171
 <211> 450
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 66..449

<400> 2171
 gagtcgcgcg ctctgctcca cccgacgggg ctgtgtgtgc tgggcctggc tcgcggcgaa 60
 ccgag atg gca gag cag tcg gac gag gcc gtg aag tac tac acc cta gag 110
 Met Ala Glu Gln Ser Asp Glu Ala Val Lys Tyr Tyr Thr Leu Glu
 1 5 10 15
 gag att cag aag cac aac cac agc aag agc amc tgg ctg atc ctg cac 158
 Glu Ile Gln Lys His Asn His Ser Lys Ser Xaa Trp Leu Ile Leu His
 20 25 30
 cac aag gtg tac gat ttg acc aaa ttt ctg gaa gag cat cct ggt ggg 206
 His Lys Val Tyr Asp Leu Thr Lys Phe Leu Glu Glu His Pro Gly Gly
 35 40 45
 gaa gaa gtt tta agg gaa caa gct gga ggt gac gct act gag aac ttg 254
 Glu Glu Val Leu Arg Glu Gln Ala Gly Gly Asp Ala Thr Glu Asn Leu
 50 55 60
 atg tcg ggc act cta cag wgc cag gga aat gtg nna aca ttc atc att 302
 Met Ser Gly Thr Leu Gln Xaa Gln Gly Asn Val Xaa Thr Phe Ile Ile
 65 70 75
 ggg gag ctc cat cca gta agt aca ttt tgg ggg ccc ttt ctt att tgt 350
 Gly Glu Leu His Pro Val Ser Thr Phe Trp Gly Pro Phe Leu Ile Cys
 80 85 90 95
 att aan nta tca gat gac ctt acc cta gtc tgt aag ctt gca tgt ata 398
 Ile Xaa Xaa Ser Asp Asp Leu Thr Leu Val Cys Lys Leu Ala Cys Ile
 100 105 110
 cac att tta aaa gga gta aag caa aaa caa ctc ctg att tta gga cac 446
 His Ile Leu Lys Gly Val Lys Gln Lys Gln Leu Leu Ile Leu Gly His
 115 120 125
 caa g 450
 Gln

<210> 2172
 <211> 413
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 66..413

<400> 2172

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gagtcgcgcg ctctgctcca cccgacgggg ctgtgtgtgc tgggcctggc tcgcggcgaa      60
ccgag atg gca gag cag tcg gac gag gcc gtg aag tac tac acc cta gag      110
      Met Ala Glu Gln Ser Asp Glu Ala Val Lys Tyr Tyr Thr Leu Glu
          1           5           10           15
gag att cag aag cac aac cac agc aag agc acc tgg ctg atc ctg cac      158
Glu Ile Gln Lys His Asn His Ser Lys Ser Thr Trp Leu Ile Leu His
          20           25           30
cac aag gtg tac gat ttg acc aaa ttt ctg gaa gag cat cct ggt ggg      206
His Lys Val Tyr Asp Leu Thr Lys Phe Leu Glu Glu His Pro Gly Gly
          35           40           45
gaa gaa gtt tta agg gaa caa gcy gga ggt gac gct act gag aac ttt      254
Glu Glu Val Leu Arg Glu Gln Ala Gly Gly Asp Ala Thr Glu Asn Phe
          50           55           60
gag gat syc ggg sac tct ama gat gcc agg gaa atg tcc aaa aca ttc      302
Glu Asp Xaa Gly Xaa Ser Xaa Asp Ala Arg Glu Met Ser Lys Thr Phe
          65           70           75
atc att ggg gag ctc cat cca gat gac aga cca aag tta aac aag cct      350
Ile Ile Gly Glu Leu His Pro Asp Asp Arg Pro Lys Leu Asn Lys Pro
          80           85           90           95
ccg gaa act ctt atc act act att gat tct agt tcc agt tgg tgg acc      398
Pro Glu Thr Leu Ile Thr Thr Ile Asp Ser Ser Ser Ser Trp Trp Thr
          100           105           110
aac tgg gtg atc ccc      413
Asn Trp Val Ile Pro
          115

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<210> 2173

<211> 441

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 219..440

<400> 2173

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acagagcgac gctggtctcc cagattgttg cagaaggaga cggcgctcgac gtctgactgg      60
actcgcggcg acttaccttt cagtcgtgcg ctctgatcc ggcgctcgga atttgctccc      120
ggcttcaggg ctgcggggcc tggaaggagg cgtatcgagg cggctcgaaa acgatccagg      180
ggagccgagg cgctctcttt gtcatcccac tcagcgcc atg tcc tgg atg ttc aag      236
                        Met Ser Trp Met Phe Lys
                              1           5
agg gat cca gtt tgg aag tac ttg cag act gtc cag tat gga gtt cat      284
Arg Asp Pro Val Trp Lys Tyr Leu Gln Thr Val Gln Tyr Gly Val His
          10           15           20
gga aat ttt cca cgc ctc tca tat cca act ttc ttt cca cgt ttt gaa      332
Gly Asn Phe Pro Arg Leu Ser Tyr Pro Thr Phe Phe Pro Arg Phe Glu
          25           30           35
ttc caa gat gtt atc cct cca gat gac ttt cta act agt gat gaa gaa      380
Phe Gln Asp Val Ile Pro Pro Asp Asp Phe Leu Thr Ser Asp Glu Glu

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40	45	50	
gta gat tcc gtt tta ttt gga agt ttg aga ggt cat gtg gtt gga cta			428
Val Asp Ser Val Leu Phe Gly Ser Leu Arg Gly His Val Val Gly Leu			
55	60	65	70
cgc tat tac acg g			441
Arg Tyr Tyr Thr			

<210> 2174
 <211> 414
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 139..414

<400> 2174	
actagcgacg gtcgtggcgt aagaccgggg ggacgcggcg gtagcggcgg ccgttgcgat	60
tgattgcgct ggttgcctgc ggcgtccact tccttggccg cccttgctac actggctgat	120
tgttgtgcag ccggcgcc atg tct gtg agc gag atc ttc gtg gag ctg cag	171
Met Ser Val Ser Glu Ile Phe Val Glu Leu Gln	
1 5 10	
ggc ttt ttg gct gcc gag cag gac atc cga gag gaa rtc aag aaa agt	219
Gly Phe Leu Ala Ala Glu Gln Asp Ile Arg Glu Glu Xaa Lys Lys Ser	
15 20 25	
tgn aca gag ttt aga aca aac agc tcg aga gat ttt aac tct act gca	267
Xaa Thr Glu Phe Arg Thr Asn Ser Ser Arg Asp Phe Asn Ser Thr Ala	
30 35 40	
agg ggt cca tca ggg tgc tgg gtt tma gga cat tcc aaa gag gtg ttt	315
Arg Gly Pro Ser Gly Cys Trp Val Xaa Gly His Ser Lys Glu Val Phe	
45 50 55	
gaa agc tcg aga wca ttt tgg tac agt aaa aac aca tct aac atc ttt	363
Glu Ser Ser Arg Xaa Phe Trp Tyr Ser Lys Asn Thr Ser Asn Ile Phe	
60 65 70 75	
gna aga cca aat ttc ctg ctg aac agt att ama gat ttc atg agc act	411
Xaa Arg Pro Asn Phe Leu Leu Asn Ser Ile Xaa Asp Phe Met Ser Thr	
80 85 90	
gga	414
Gly	

<210> 2175
 <211> 519
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 96..518

<400> 2175	
attcctgaga gctctcctca ccaagaagca gcttctccgc tccttctagg atctccgcct	60
ggttcggccc gcctgcctcc actcctgcct cyacc atg tcc atc agg gtg acc	113

	Met	Ser	Ile	Arg	Val	Thr	
	1				5		
cag aag tcc tac aag gtg tcc acc tct ggc ccc cgg gcc ttc agc agc							161
Gln Lys Ser Tyr Lys Val Ser Thr Ser Gly Pro Arg Ala Phe Ser Ser							
	10				20		
cgc tcc tac acg agt ggg ccc ggt tcc cgc atc agc tcc tcg agc ttc							209
Arg Ser Tyr Thr Ser Gly Pro Gly Ser Arg Ile Ser Ser Ser Ser Phe							
	25				35		
tcc cga gtg ggc agc agc aac ttt cgc ggt ggc ctg ggc ggc ggc tat							257
Ser Arg Val Gly Ser Ser Asn Phe Arg Gly Gly Leu Gly Gly Gly Tyr							
	40				50		
ggg ggc gcc agc ggc atg gga ggc atc acc gca gtt acg gtc aac cag							305
Gly Gly Ala Ser Gly Met Gly Gly Ile Thr Ala Val Thr Val Asn Gln							
	55				65		70
agc ctg ctg agc ccc ctt gtc ctg gag gtg gac ccc aac atc cag gcc							353
Ser Leu Leu Ser Pro Leu Val Leu Glu Val Asp Pro Asn Ile Gln Ala							
	75				80		85
gtg cgc acc cag gag aag gag cag atc aag acc ctc aac aac aag ttt							401
Val Arg Thr Gln Glu Lys Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe							
	90				95		100
gcc tcc ttc ata gac aag gyr cgg ttc ctg gag cag cag aac aag atg							449
Ala Ser Phe Ile Asp Lys Xaa Arg Phe Leu Glu Gln Gln Asn Lys Met							
	105				110		115
ctg gag acc aag tgg agc ctc tgc agc agc aga aga cgg ctc gaa gca							497
Leu Glu Thr Lys Trp Ser Leu Cys Ser Ser Arg Arg Arg Leu Glu Ala							
	120				125		130
aca tgg aca aca tgt tcg aga g							519
Thr Trp Thr Thr Cys Ser Arg							
	135				140		

<210> 2176
 <211> 414
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 110..412

<400> 2176	
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gcggcttcag cagatcgagg gcatcagcgg tagcaccagc actagcagc atg ttg agc	118
	Met Leu Ser
	1
cgg gca gtg tgc ggc acc agc agg cag ctg gct ccg gyt ttg ggg tat	166
Arg Ala Val Cys Gly Thr Ser Arg Gln Leu Ala Pro Xaa Leu Gly Tyr	
	5 10 15
ctg ggc tcc agg cag aag cac agc ctc ccc gac ctg ccc tac gac tac	214
Leu Gly Ser Arg Gln Lys His Ser Leu Pro Asp Leu Pro Tyr Asp Tyr	
	20 25 30 35
ggc gcc ctg gaa cct cac atc aac gcg cag atc atg cag ctg cac cac	262
Gly Ala Leu Glu Pro His Ile Asn Ala Gln Ile Met Gln Leu His His	
	40 45 50

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agc aag cac cac gcg gcc tac gtg aac aac ctg aac gtc acc gag gag      310
Ser Lys His His Ala Ala Tyr Val Asn Asn Leu Asn Val Thr Glu Glu
      55      60      65
aag tac cag gag gcg ttg gcc aan gga gat gtt aca gcc cag ata gct      358
Lys Tyr Gln Glu Ala Leu Ala Xaa Gly Asp Val Thr Ala Gln Ile Ala
      70      75      80
ctt cag cct gca ctg aag ttc aat ggt ggt ggt cat atc aat cat agc      406
Leu Gln Pro Ala Leu Lys Phe Asn Gly Gly Gly His Ile Asn His Ser
      85      90      95
att ttc tg
Ile Phe
100
414

<210> 2177
<211> 441
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 110..439

<400> 2177
gatttcgagg gmmactgggtg tgacgtgtcc cgcgcttggc sagcaggaag cggcggcgaa      60
cgcggcctga attcccgagg cgggccccag ctctctgtcc gctgcccgc atg ctc gac      118
                                Met Leu Asp
                                1
ttc ttc acc att ttc tcc aag ggc ggg ctt gtg ctc tgg tgc ttc cag      166
Phe Phe Thr Ile Phe Ser Lys Gly Gly Leu Val Leu Trp Cys Phe Gln
      5      10      15
ggc gtt anc gac tca tgc acc gga ccc gtt aac gcg ttg att cgt tcc      214
Gly Val Xaa Asp Ser Cys Thr Gly Pro Val Asn Ala Leu Ile Arg Ser
      20      25      30      35
gtg ctg ctg cag gaa cgg gga ggt aac aac tcc ttc acc cat gag gca      262
Val Leu Leu Gln Glu Arg Gly Gly Asn Asn Ser Phe Thr His Glu Ala
      40      45      50
ctc aca ctc aag tat aaa ctg gac aac cag ttt gag ctg gnn ktt gtg      310
Leu Thr Leu Lys Tyr Lys Leu Asp Asn Gln Phe Glu Leu Xaa Xaa Val
      55      60      65
gtt ggt ttt cag aag atc ctg aca ctg aca tat gta gac aaa ttg ata      358
Val Gly Phe Gln Lys Ile Leu Thr Leu Thr Tyr Val Asp Lys Leu Ile
      70      75      80
gat gac gtg cat cgg ctg ttt cgg gnn aag tac cgc aca gag atc caa      406
Asp Asp Val His Arg Leu Phe Arg Xaa Lys Tyr Arg Thr Glu Ile Gln
      85      90      95
cag caa agt gct tta agt tta tta aat ggc act tt      441
Gln Gln Ser Ala Leu Ser Leu Leu Asn Gly Thr
      100      105      110

<210> 2178
<211> 347
<212> DNA
<213> Homo sapiens

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<220>
 <221> CDS
 <222> 75..347

<400> 2178

ttgaggatgg aatctttgag gtcaartcta cagctggaga caccacttg ggtggagaag	60
attttgacaa ccga atg gtc aac cat ttt att gct gag ttt aag cgc aag	110
Met Val Asn His Phe Ile Ala Glu Phe Lys Arg Lys	
1 5 10	
cat aag aag gac atc agt gag aac aag aga gct gta aga cgc ctc cgt	158
His Lys Lys Asp Ile Ser Glu Asn Lys Arg Ala Val Arg Arg Leu Arg	
15 20 25	
act gct tgt gaa cgt gct aag cgt acc ctc tct tcc agc acc cag gcc	206
Thr Ala Cys Glu Arg Ala Lys Arg Thr Leu Ser Ser Ser Thr Gln Ala	
30 35 40	
agt att gag atc gat tct ctc tat gaa gga atc gac ttc tat acc tcc	254
Ser Ile Glu Ile Asp Ser Leu Tyr Glu Gly Ile Asp Phe Tyr Thr Ser	
45 50 55 60	
att acc cgt gcc cga ttt gaa gaa ctg aat gct gac ctg ttc cgt ggc	302
Ile Thr Arg Ala Arg Phe Glu Glu Leu Asn Ala Asp Leu Phe Arg Gly	
65 70 75	
acc ctg gac cca gta gag aaa gcc ctt cga gat gcc aaa cta gac	347
Thr Leu Asp Pro Val Glu Lys Ala Leu Arg Asp Ala Lys Leu Asp	
80 85 90	

<210> 2179
 <211> 267
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 18..266

<400> 2179

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Met Ala Glu Ala Glu Gly Glu Ser Leu Glu Ser	
1 5 10	
tgg ctc aat aaa gcc acc aat cct tcc aac cgc cag gag gac tgg gaa	98
Trp Leu Asn Lys Ala Thr Asn Pro Ser Asn Arg Gln Glu Asp Trp Glu	
15 20 25	
tac ata att ggc ttc tgt gat cag atc aac aag gag ctg gaa ggg cca	146
Tyr Ile Ile Gly Phe Cys Asp Gln Ile Asn Lys Glu Leu Glu Gly Pro	
30 35 40	
cag atc gcc gtc cga ctg ctg gcc cac aag atc cag tcc cca cag gaa	194
Gln Ile Ala Val Arg Leu Leu Ala His Lys Ile Gln Ser Pro Gln Glu	
45 50 55	
tgg gag gcg ctc cag gcc ctg acg gtg ctg gag gca tgc atg aag aac	242
Trp Glu Ala Leu Gln Ala Leu Thr Val Leu Glu Ala Cys Met Lys Asn	
60 65 70 75	
tgt ggg agg aga ttt cat aac gaa g	267

Cys Gly Arg Arg Phe His Asn Glu
80

<210> 2180
<211> 264
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 13..264

<400> 2180
ggacgcgcac st atg gca gag ggc agc ggg gaa gtg gtc gca gtg tct gcg 51
Met Ala Glu Gly Ser Gly Glu Val Val Ala Val Ser Ala
1 5 10
acg ggg ctg cca acg gcc tca aca atg ggg cag gcg gga cct cgg cga 99
Thr Gly Leu Pro Thr Ala Ser Thr Met Gly Gln Ala Gly Pro Arg Arg
15 20 25
cga cct gca acc sct gtc gcg caa ctg cat aag atc ctg gag acg cgg 147
Arg Pro Ala Thr Xaa Val Ala Gln Leu His Lys Ile Leu Glu Thr Arg
30 35 40 45
ctg gac aac gac aag gag atg tta gaa gct ctc aag gca ctt tca acc 195
Leu Asp Asn Asp Lys Glu Met Leu Glu Ala Leu Lys Ala Leu Ser Thr
50 55 60
ttt ttt gtt gaa aat agt ctg cgg act cga aga aat tta cgt gga gat 243
Phe Phe Val Glu Asn Ser Leu Arg Thr Arg Arg Asn Leu Arg Gly Asp
65 70 75
att gaa cgt aaa agt tta gcc 264
Ile Glu Arg Lys Ser Leu Ala
80

<210> 2181
<211> 379
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 51..377

<400> 2181
ctgcgcagtc ggtgtctccg cgtcgcctggg tgggacttgg ctcggcggcc atg ggc 56
Met Gly
1
aag cag aac agc aag ctg cgg ccc gag atg ttg cag gac ctg cga gag 104
Lys Gln Asn Ser Lys Leu Arg Pro Glu Met Leu Gln Asp Leu Arg Glu
5 10 15
aac aca gag ttc tca gag ctg gag ctg cag gag tgg tac aag ggc ttc 152
Asn Thr Glu Phe Ser Glu Leu Glu Leu Gln Glu Trp Tyr Lys Gly Phe
20 25 30
ctc aag gac tgc ccc aca gga atc ctc aat gtg gat gag ttc aag aag 200

Leu	Lys	Asp	Cys	Pro	Thr	Gly	Ile	Leu	Asn	Val	Asp	Glu	Phe	Lys	Lys	
35					40				45						50	
atc	tac	gcc	aac	ttc	ttt	ccc	tat	ggg	gac	gcc	tcc	aag	ttt	gcc	gag	248
Ile	Tyr	Ala	Asn	Phe	Phe	Pro	Tyr	Gly	Asp	Ala	Ser	Lys	Phe	Ala	Glu	
			55					60					65			
cac	gtc	ttc	cgc	acc	ttt	gac	acc	aac	agc	gat	ggc	acc	ata	gac	ttt	296
His	Val	Phe	Arg	Thr	Phe	Asp	Thr	Asn	Ser	Asp	Gly	Thr	Ile	Asp	Phe	
			70					75					80			
cgg	gag	ttc	atc	att	gcg	ctg	agc	gtg	acc	tcg	cgc	ggc	ccc	gcc	tgg	344
Arg	Glu	Phe	Ile	Ile	Ala	Leu	Ser	Val	Thr	Ser	Arg	Gly	Pro	Ala	Trp	
		85				90						95				
agc	aga	agc	tca	tgt	ggg	cct	tca	gca	tgt	atg	ac					379
Ser	Arg	Ser	Ser	Cys	Gly	Pro	Ser	Ala	Cys	Met						
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 <211> 501
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 92..499

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tcttgttctc	tgctgtact	gtaaaaacga	a	atg	agt	ggg	112								
				Met	Ser	Gly									
				1		5									
cca	atg	atg	tcc	cca	aat	ggg	160								
Pro	Met	Met	Ser	Pro	Asn	Gly									
		10				15									
gga	tat	gcc	cca	cag	gtt	att	208								
Gly	Tyr	Ala	Pro	Gln	Val	Ile									
		25				30									
gtg	gtc	cct	cag	gca	cca	gag	256								
Val	Val	Pro	Gln	Ala	Pro	Glu									
		40				45									
cac	cgt	tct	cca	cat	cct	cct	304								
His	Arg	Ser	Pro	His	Pro	Pro									
			60			65									
atg	atg	ccg	cct	cca	cca	cgt	352								
Met	Met	Pro	Pro	Pro	Arg	His									
		75				80									
gga	gac	atg	aca	aca	cag	tat	400								
Gly	Asp	Met	Thr	Thr	Gln	Tyr									
		90				95									
tat	gga	gat	gta	gat	gct	cac	448								
Tyr	Gly	Asp	Val	Asp	Ala	His									
		105				110									
gat	gaa	cga	tct	agt	aaa	aca	496								
Asp	Glu	Arg	Ser	Ser	Lys	Thr									
					125										
						130									
							135								

gat cg
Asp

501

<210> 2183
<211> 282
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 45..281

<400> 2183
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Met Ala Lys Thr
1
tac gat tat ctc ttc aag ctc ctg ctg atc ggc gac tcg ggg gta ggc 104
Tyr Asp Tyr Leu Phe Lys Leu Leu Leu Ile Gly Asp Ser Gly Val Gly
5 10 15 20
aag acc tgc ctc ctg ttc cgc ttc tca gag gac gcc ttc aac acc acc 152
Lys Thr Cys Leu Leu Phe Arg Phe Ser Glu Asp Ala Phe Asn Thr Thr
25 30 35
ttc atc tcc acc atc gga att gat ttt aaa att aga acg ata gaa cta 200
Phe Ile Ser Thr Ile Gly Ile Asp Phe Lys Ile Arg Thr Ile Glu Leu
40 45 50
gat gga aag aaa att aag ctt cag ata tgg gac aca gcg ggt cag gaa 248
Asp Gly Lys Lys Ile Lys Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu
55 60 65
aga ttc cga aca atc acg aca gcg tac tac aga g 282
Arg Phe Arg Thr Ile Thr Thr Ala Tyr Tyr Arg
70 75

<210> 2184
<211> 500
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 93..500

<400> 2184
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ggctgcgagc tctctgtggt gctggcagcg ac atg tgg cgc ctc ccg gga ctc 113
Met Trp Arg Leu Pro Gly Leu
1 5
ctg ggc cga gct ctt ccc cgt aca ctg gga cct agc ctc tgg agg gtg 161
Leu Gly Arg Ala Leu Pro Arg Thr Leu Gly Pro Ser Leu Trp Arg Val
10 15 20
act cct aag tcc acc agc cca gat ggg cct cag act acc tcc tcc act 209
Thr Pro Lys Ser Thr Ser Pro Asp Gly Pro Gln Thr Thr Ser Ser Thr
25 30 35

ttg ctg gtt cct gtg cct aac ctc gac agg tca ggt ccc cat ggc cca	257
Leu Leu Val Pro Val Pro Asn Leu Asp Arg Ser Gly Pro His Gly Pro	
40 45 50 55	
ggc acg agc ggg ggt cca agg tcc cat gga tgg aag gat gcc ttc caa	305
Gly Thr Ser Gly Gly Pro Arg Ser His Gly Trp Lys Asp Ala Phe Gln	
60 65 70	
tgg atg tct tcc cgt gtc tcc ccg aac acc cta tgg gat gcc ata tct	353
Trp Met Ser Ser Arg Val Ser Pro Asn Thr Leu Trp Asp Ala Ile Ser	
75 80 85	
tgg ggc act ctg gcc gtg ctg gcc ctg cag ctg gca agg cag atc cac	401
Trp Gly Thr Leu Ala Val Leu Ala Leu Gln Leu Ala Arg Gln Ile His	
90 95 100	
ttc cag gca tcc ctg cca gca gga cct cag cgg gta gaa cac tgc tcc	449
Phe Gln Ala Ser Leu Pro Ala Gly Pro Gln Arg Val Glu His Cys Ser	
105 110 115	
tgg cac agt ccc ctg gac ngf ttc ttc tca tct nnc ktg tgg cas cca	497
Trp His Ser Pro Leu Asp Xaa Phe Phe Ser Ser Xaa Xaa Trp Xaa Pro	
120 125 130 135	
tgc	500
Cys	

<210> 2185
 <211> 473
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 111..473

<400> 2185	
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cgctgttcgt ccgggttttt tacgttttaa tttccaggac ttgaactgcc atg tcc	116
Met Ser	
1	
tct gaa gaa gga aag ctc ttc gtg gga ggg ctc aac ttt aac acc gac	164
Ser Glu Glu Gly Lys Leu Phe Val Gly Gly Leu Asn Phe Asn Thr Asp	
5 10 15	
gag cag gca ctg gaa gac cac ttc agc agt ttc gga cct atc tct gag	212
Glu Gln Ala Leu Glu Asp His Phe Ser Ser Phe Gly Pro Ile Ser Glu	
20 25 30	
gtg gtc gtt gtc aag gac cgg gag act cag cgg tcc agg ggt ttt ggt	260
Val Val Val Val Lys Asp Arg Glu Thr Gln Arg Ser Arg Gly Phe Gly	
35 40 45 50	
ttc atc acc ttc acc aac cca gag cat gct tca gtt gcc atg aga gcc	308
Phe Ile Thr Phe Thr Asn Pro Glu His Ala Ser Val Ala Met Arg Ala	
55 60 65	
atg aac gga gag tct ctg gat ggt cgt cag atc cgt gtg gat cat gca	356
Met Asn Gly Glu Ser Leu Asp Gly Arg Gln Ile Arg Val Asp His Ala	
70 75 80	
ggc aag tct gct cgg gga acc aga gga ggt ggc ttt ggg gcc cat ggg	404
Gly Lys Ser Ala Arg Gly Thr Arg Gly Gly Gly Phe Gly Ala His Gly	
85 90 95	

cgt ggt cgc agc tac tct aaa ggt ggt ggg gac agg gct atg gga gtg 452
 Arg Gly Arg Ser Tyr Ser Lys Gly Gly Gly Asp Arg Ala Met Gly Val
 100 105 110

gca ggt att atg aca gtc gaa 473
 Ala Gly Ile Met Thr Val Glu
 115 120

<210> 2186

<211> 490

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 313..489

<400> 2186

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 tccgatgctc tttccatctg cctccacgt gacagggctt gcgctgcttc tatttatcag 120
 tttgcttggt tcaggcattt cacgtggacc aggtggatca tctgtgcgtg cagctgcctt 180
 ggccctctca gttgcccccg ccccggtgga gtcgggggat tccatccttc gtgatggcat 240
 ccataccggg ttgagatttg aagaccttgc ttctcatcac cactggatt atgccccagg 300
 ctttccctacc ca atg atc ctc ttg caa cac gcc gtg ctt cct cca cct aag 351

Met Ile Leu Leu Gln His Ala Val Leu Pro Pro Pro Lys

1 5 10
 cag ccc tca ccc tcg cct cct atg tca gtg gcc acc agg tct aca gga 399
 Gln Pro Ser Pro Ser Pro Pro Met Ser Val Ala Thr Arg Ser Thr Gly

15 20 25
 acc ttg cag ctt cca cca cag aag cct ttt ggg cag gag gct tcc ttg 447
 Thr Leu Gln Leu Pro Pro Gln Lys Pro Phe Gly Gln Glu Ala Ser Leu
 30 35 40 45

cct ctt gca ggg gaa gaa gag tta tcg aag gga ggg gag caa g 490
 Pro Leu Ala Gly Glu Glu Glu Leu Ser Lys Gly Gly Glu Gln
 50 55

<210> 2187

<211> 461

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 34..459

<400> 2187

cttcgatcct cggggagccc aggagaccag aac atg aac tcc ttc aat tat acc 54
 Met Asn Ser Phe Asn Tyr Thr
 1 5

acc cct gat tat ggg cac tat gat gac aag gat acc ctg gac ctc aac 102
 Thr Pro Asp Tyr Gly His Tyr Asp Asp Lys Asp Thr Leu Asp Leu Asn
 10 15 20

acc cct gtg gat aaa act tct aac acg ctg cgt gtt cca gac atc ctg 150

Thr	Pro	Val	Asp	Lys	Thr	Ser	Asn	Thr	Leu	Arg	Val	Pro	Asp	Ile	Leu	
25						30					35					
gcc	ttg	gtc	atc	ttt	gca	gtc	gtc	ttc	ctg	gtg	gga	gtg	ctg	ggc	aat	198
Ala	Leu	Val	Ile	Phe	Ala	Val	Val	Phe	Leu	Val	Gly	Val	Leu	Gly	Asn	
40					45				50					55		
gcc	ctg	gtg	gtc	tgg	gtg	acg	gca	ttc	gag	gcc	aag	cgg	acc	atc	aat	246
Ala	Leu	Val	Val	Trp	Val	Thr	Ala	Phe	Glu	Ala	Lys	Arg	Thr	Ile	Asn	
				60					65					70		
gcc	atc	tgg	ttc	ctc	aac	ttg	gcg	gta	gcg	act	tcc	tct	cct	gcc	tgg	294
Ala	Ile	Trp	Phe	Leu	Asn	Leu	Ala	Val	Ala	Thr	Ser	Ser	Pro	Ala	Trp	
			75					80					85			
cgc	tgc	cca	tct	tgt	tca	cgt	cca	ttg	tac	agc	atc	acc	amt	ggc	cct	342
Arg	Cys	Pro	Ser	Cys	Ser	Arg	Pro	Leu	Tyr	Ser	Ile	Thr	Xaa	Gly	Pro	
		90					95					100				
ttg	gcg	ggg	ccg	cct	gca	gma	tcc	tgc	cct	ccc	tca	tcc	tgc	tca	aca	390
Leu	Ala	Gly	Pro	Pro	Ala	Xaa	Ser	Cys	Pro	Pro	Ser	Ser	Cys	Ser	Thr	
		105				110					115					
tgt	acg	cca	gca	tcc	tgm	tcc	tgg	cca	cca	tca	rmg	ccg	amc	gcn	wtc	438
Cys	Thr	Pro	Ala	Ser	Xaa	Ser	Trp	Pro	Pro	Ser	Xaa	Pro	Xaa	Ala	Xaa	
120				125					130					135		
tgc	tgg	tgt	tta	aac	cca	tct	gg									461
Cys	Trp	Cys	Leu	Asn	Pro	Ser										
				140												

<210> 2188
 <211> 403
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 57..401

<400> 2188
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 Met
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 gcg aca agg aac agc ccc atg ccc ctg ggc acg gct cag ggt gac cct 107
 Ala Thr Arg Asn Ser Pro Met Pro Leu Gly Thr Ala Gln Gly Asp Pro
 5 10 15
 gga gag gnm gga aca cgg ccc ggc cct gac gcc agc ctc egg gac aca 155
 Gly Glu Xaa Gly Thr Arg Pro Gly Pro Asp Ala Ser Leu Arg Asp Thr
 20 25 30
 ggt gcg gcc act cag ctc aag atg aag ccc agg aag gtg cac aag atc 203
 Gly Ala Ala Thr Gln Leu Lys Met Lys Pro Arg Lys Val His Lys Ile
 35 40 45
 aag gcg gtc atc atc gac ctg ggc tcc cag tac tgc aag tgc ggc tac 251
 Lys Ala Val Ile Ile Asp Leu Gly Ser Gln Tyr Cys Lys Cys Gly Tyr
 50 55 60 65
 gcg gga gag ccg agg ccc acc tac ttc atc tcc tcc acc gtg ggc aaa 299
 Ala Gly Glu Pro Arg Pro Thr Tyr Phe Ile Ser Ser Thr Val Gly Lys
 70 75 80
 cgc tgc ccc gag gcg gcc gac gct ggc gam acc cgc aag tgg act tta 347

Arg	Cys	Pro	Glu	Ala	Ala	Asp	Ala	Gly	Xaa	Thr	Arg	Lys	Trp	Thr	Leu	
			85					90					95			
gtg	ggc	cat	gag	ctg	ctc	aac	acg	gag	gcc	gcc	tct	caa	gct	ggg	gaa	395
Val	Gly	His	Glu	Leu	Leu	Asn	Thr	Glu	Ala	Ala	Ser	Gln	Ala	Gly	Glu	
		100					105					110				
ccc	gct	ga														403
Pro	Ala															
		115														

<210> 2189
 <211> 200
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 17..199

<400> 2189																
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		Met	Asp	Pro	Gly	Gly	Ala	Arg	Glu	His	Cys	Leu	Ser			
		1			5						10					
cct	ggg	caa	ccg	gag	agg	acg	aag	cag	gac	cta	ggg	ggc	ggc	ggg	tgg	100
Pro	Gly	Gln	Pro	Glu	Arg	Thr	Lys	Gln	Asp	Leu	Gly	Gly	Gly	Gly	Trp	
		15				20					25					
kam	cgg	gct	gma	atg	gtg	tcc	aat	ccc	gtg	cat	ggc	ttg	ccc	ttt	ctt	148
Xaa	Arg	Ala	Xaa	Met	Val	Ser	Asn	Pro	Val	His	Gly	Leu	Pro	Phe	Leu	
		30				35				40						
ccg	ggc	acg	tcc	ttt	aag	gac	tct	acg	aaa	aca	gcc	ttc	cac	aga	agt	196
Pro	Gly	Thr	Ser	Phe	Lys	Asp	Ser	Thr	Lys	Thr	Ala	Phe	His	Arg	Ser	
		45			50			55						60		
cag	a															200
Gln																

<210> 2190
 <211> 333
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 120..332

<400> 2190																
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agggtggtgc	ggastggtaa	gaatcatatt	ctaagaactc	agccactcag	gtatccacc											119
atg	gtg	ctg	ggg	cct	gaa	cag	aag	atg	tca	gat	gac	agt	gtt	tct	gga	167
Met	Val	Leu	Gly	Pro	Glu	Gln	Lys	Met	Ser	Asp	Asp	Ser	Val	Ser	Gly	
1			5					10					15			
gat	cat	ggg	gag	tct	gcc	agt	ctt	ggg	aac	atc	aac	cct	gcc	tat	agt	215
Asp	His	Gly	Glu	Ser	Ala	Ser	Leu	Gly	Asn	Ile	Asn	Pro	Ala	Tyr	Ser	
			20					25					30			

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aat ccc tct ctt tca cag tcc cct ggg gac tca gag gag tac ttc gcc      263
Asn Pro Ser Leu Ser Gln Ser Pro Gly Asp Ser Glu Glu Tyr Phe Ala
      35                      40                      45
act tac ttt aat gag aag atc tcc att cct gag gag gag tac tct tgt      311
Thr Tyr Phe Asn Glu Lys Ile Ser Ile Pro Glu Glu Glu Tyr Ser Cys
      50                      55                      60
ttt agc ttt cgt aaa ctc tgg g                                          333
Phe Ser Phe Arg Lys Leu Trp
65                      70

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<210> 2191
 <211> 299
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 101..298

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<400> 2191
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goggctgcag cagcagcaac aagtcgggac ttttagagta atg caa cag aag gct      115
                                         Met Gln Gln Lys Ala
                                         1                      5
ttt gag gaa agc aga tat ccc tgg cag gag tcc ttt gag aat gtt gct      163
Phe Glu Glu Ser Arg Tyr Pro Trp Gln Glu Ser Phe Glu Asn Val Ala
      10                      15                      20
gtg tgc ctg cca tta cgc tgc ccg agg tgt gga gac cat acc aga ttt      211
Val Cys Leu Pro Leu Arg Cys Pro Arg Cys Gly Asp His Thr Arg Phe
      25                      30                      35
aga agc ttg tca tcc ttg agg gcc cat ctg gag ttc agt cac agc tac      259
Arg Ser Leu Ser Ser Leu Arg Ala His Leu Glu Phe Ser His Ser Tyr
      40                      45                      50
gaa gaa aga acc ctc ttg aca aaa tgc agt ctc ttt cca t                                          299
Glu Glu Arg Thr Leu Leu Thr Lys Cys Ser Leu Phe Pro
      55                      60                      65

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<210> 2192
 <211> 398
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 152..397

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cagaagttgg ggtctccgtg ggcattgtga tccgtccag gcagtggatt aggaggccag      120
aaggagatcc cttccacggt gctaggctga g atg gat cct ctc agg gcc caa      172
                                         Met Asp Pro Leu Arg Ala Gln
                                         1                      5

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cag ctg gct gcg grr ctg gag gtg gag atg atg gcc gat atg tac aac	220
Gln Leu Ala Ala Xaa Leu Glu Val Glu Met Met Ala Asp Met Tyr Asn	
10 15 20	
aga atg acc agt gcc tgc cac cgg aag tgt gtg cct cct cac tac aag	268
Arg Met Thr Ser Ala Cys His Arg Lys Cys Val Pro Pro His Tyr Lys	
25 30 35	
gaa gca gag ctc tcc aag ggc gag tct gtg tgc ctg gac cga tgt gtc	316
Glu Ala Glu Leu Ser Lys Gly Glu Ser Val Cys Leu Asp Arg Cys Val	
40 45 50 55	
tct aag tac ctg gac atc cat gag cgg atg ggc aaa aag ttg aca gag	364
Ser Lys Tyr Leu Asp Ile His Glu Arg Met Gly Lys Lys Leu Thr Glu	
60 65 70	
ttg tct atg cag gat gaa gag ctg atg aag agg g	398
Leu Ser Met Gln Asp Glu Glu Leu Met Lys Arg	
75 80	

<210> 2193
 <211> 366
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 79..366

<400> 2193	
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gacataagtc ggktkagac atg gct gaa gat aaa agc aag aga gac tcc atc	111
Met Ala Glu Asp Lys Ser Lys Arg Asp Ser Ile	
1 5 10	
gag atg agt atg aag gga tgc cag aca aac aac ggg ttt gtc cat aat	159
Glu Met Ser Met Lys Gly Cys Gln Thr Asn Asn Gly Phe Val His Asn	
15 20 25	
gaa gac att ctg gag cag acc ccg gat cca ggm agc tca aca gac aac	207
Glu Asp Ile Leu Glu Gln Thr Pro Asp Pro Gly Ser Ser Thr Asp Asn	
30 35 40	
ctg aag cac agc acc agg ggc atc ctt ggc tcc cag gag ccc gac ttc	255
Leu Lys His Ser Thr Arg Gly Ile Leu Gly Ser Gln Glu Pro Asp Phe	
45 50 55	
aag ggc gtc cag ccc tat gcg ggg atg ccc aag gag gtg ctg ttc cag	303
Lys Gly Val Gln Pro Tyr Ala Gly Met Pro Lys Glu Val Leu Phe Gln	
60 65 70 75	
ttc tct ggc cag gcc cgc tac cgc ata cct ctg gag atc ctc ttc tgg	351
Phe Ser Gly Gln Ala Arg Tyr Arg Ile Pro Leu Glu Ile Leu Phe Trp	
80 85 90	
ctc gca gtg gct tct	366
Leu Ala Val Ala Ser	
95	

<210> 2194
 <211> 495
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 20..493

<400> 2194

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Met Ala Ala Pro Ser Trp Arg Gly Ala Arg Leu	
1 5 10	
gtt caa tcg gtg tta aga gtc tgg cag gtg ggc cct cat gtc gcg agg	100
Val Gln Ser Val Leu Arg Val Trp Gln Val Gly Pro His Val Ala Arg	
15 20 25	
gag cgg gtg atc cct ttt tcc tca ctc tta ggc ttc caa cgg agg tgc	148
Glu Arg Val Ile Pro Phe Ser Ser Leu Leu Gly Phe Gln Arg Arg Cys	
30 35 40	
gtg tcc tgc gtc gcg ggg tcc gct ttc tct ggt ccc cgc ttg gcc tcg	196
Val Ser Cys Val Ala Gly Ser Ala Phe Ser Gly Pro Arg Leu Ala Ser	
45 50 55	
gct tct cgc agt rrt ggc car ggs tct gcc ctg gac cac ttc ctc gga	244
Ala Ser Arg Ser Xaa Gly Gln Gly Ser Ala Leu Asp His Phe Leu Gly	
60 65 70 75	
ttc tct cag ccc gac agt tcg gtg act cct tgc gtc ccc gcg gtg tcc	292
Phe Ser Gln Pro Asp Ser Ser Val Thr Pro Cys Val Pro Ala Val Ser	
80 85 90	
atg aac aga gat gag cag gat gtc ctc ttg gtc cat cac cct gat atg	340
Met Asn Arg Asp Glu Gln Asp Val Leu Leu Val His His Pro Asp Met	
95 100 105	
cct gag aat tcc cgg gtc cta cga gtg gtc ctc ctg gga gcc ccg aat	388
Pro Glu Asn Ser Arg Val Leu Arg Val Val Leu Leu Gly Ala Pro Asn	
110 115 120	
gca ggg aag tca aca ctc tcc aac cag cta mtg ggc cga aag gtg ttc	436
Ala Gly Lys Ser Thr Leu Ser Asn Gln Leu Xaa Gly Arg Lys Val Phe	
125 130 135	
cct gtt tcc agg aat gtg cat act ast cgc tgc caa gct ctg ggg gtc	484
Pro Val Ser Arg Asn Val His Thr Xaa Arg Cys Gln Ala Leu Gly Val	
140 145 150 155	
atc aca gag aa	495
Ile Thr Glu	

<210> 2195
 <211> 452
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 102..452

<400> 2195

atagtcagtg gcggcgctga agagaccggt tgccgccatg atagaacagc agaagcgtaa	60
gggccagag ttgccgctgg ttccagtcg ggcgcagcgn c atg agt tgc tgt tgg	116
Met Ser Cys Cys Trp	

Val Gly His Cys Met Pro
90

<210> 2197
<211> 345
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 184..345

<400> 2197
ctctagtcac cgccctcgca gcggcgccca acatcacccgc cactgccacc cctcccagac 60
tgtggacggg aggatggagt cgatggccgt cgctaccgac ggccggggaga ggccgggggt 120
cccagcgggc tcaggtctgt cggcttccca gcgtcgggcg gastgcgtcg gagaaagctg 180
ctc atg aac tcg gaa cag cgc atc aac cgg atc atg ggc ttt cac agg 228
Met Asn Ser Glu Gln Arg Ile Asn Arg Ile Met Gly Phe His Arg
1 5 10 15
ccn ggg agc ggc gcg gaa gaa gaa agt caa aca aaa tca aag cag cag 276
Pro Gly Ser Gly Ala Glu Glu Glu Ser Gln Thr Lys Ser Lys Gln Gln
20 25 30
gac agt gat aaa ctg aac tcc ctc agc gtt cct tcc gtt tca aag cga 324
Asp Ser Asp Lys Leu Asn Ser Leu Ser Val Pro Ser Val Ser Lys Arg
35 40 45
gta gtg ctg ggt gat tca gtc 345
Val Val Leu Gly Asp Ser Val
50

<210> 2198
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 91..390

<400> 2198
cattcttcgc tgctgatcgc gggattcttt ttggataggg ttgacgttcg tggatagact 60
catatctgtg accagtgtcc gccaccgcgg atg gca aga gac ctg atc gga ccg 114
Met Ala Arg Asp Leu Ile Gly Pro
1 5
gcc ctg ccg ccc ggc ttc aag gcc cgc gga aca gcg gag gac gaa gag 162
Ala Leu Pro Pro Gly Phe Lys Ala Arg Gly Thr Ala Glu Asp Glu Glu
10 15 20
cgg gac ccg agc cct gtt gca gga cca gct ctg ccc cct aat tat aaa 210
Arg Asp Pro Ser Pro Val Ala Gly Pro Ala Leu Pro Pro Asn Tyr Lys
25 30 35 40
agc agt agt tca gat tca tca gac agc gat gaa gac agt agt tct ttg 258
Ser Ser Ser Ser Asp Ser Ser Asp Ser Asp Glu Asp Ser Ser Ser Leu
45 50 55

004220"656E1560

tac gaa gaa gga aat caa gaa tct gaa gaa gat gac agt ggt cca act	306
Tyr Glu Glu Gly Asn Gln Glu Ser Glu Glu Asp Asp Ser Gly Pro Thr	
60 65 70	
gca aga aaa cag agg aaa aat cag gat gat gac gat gat gat gat gat	354
Ala Arg Lys Gln Arg Lys Asn Gln Asp Asp Asp Asp Asp Asp Asp Asp	
75 80 85	
ggg ttt ttt gga cca gcc ctt cct cct gga ttt aaa	390
Gly Phe Phe Gly Pro Ala Leu Pro Pro Gly Phe Lys	
90 95 100	

<210> 2199
 <211> 232
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 56..232

<400> 2199	
ctctgtgcct cggtgtcccc tggcgcaccc ggacatctct cagggtgccg gcacc atg	58
Met	
1	
aag atc tgg act tcg gag cac gtc ttt gac cac ccg tgg gaa act gtc	106
Lys Ile Trp Thr Ser Glu His Val Phe Asp His Pro Trp Glu Thr Val	
5 10 15	
aca aca gct gca atg cag aaa tac cca aac cct atg aac cca agt gtc	154
Thr Thr Ala Ala Met Gln Lys Tyr Pro Asn Pro Met Asn Pro Ser Val	
20 25 30	
gtt gga gtt gat gtg ttg gac aga cat ata gat ccc tct gga aag ttg	202
Val Gly Val Asp Val Leu Asp Arg His Ile Asp Pro Ser Gly Lys Leu	
35 40 45	
cac agc cam aga ctt ctc agc aca gag tgg	232
His Ser Xaa Arg Leu Leu Ser Thr Glu Trp	
50 55	

<210> 2200
 <211> 265
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 33..263

<400> 2200	
cccaggatgc ggtgcgtgct tctgcccagc gc atg ggt gac acc cac act ggc	53
Met Gly Asp Thr His Thr Gly	
1 5	
ctg gcg ctg gtc tat gcc aag gaa cag ctg ttt gct gaa gca tca ggt	101
Leu Ala Leu Val Tyr Ala Lys Glu Gln Leu Phe Ala Glu Ala Ser Gly	
10 15 20	

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gcc cgg cca ggg gtg ccc aaa gtg ctg gtg tgg gtg aca gat ggc ggs      149
Ala Arg Pro Gly Val Pro Lys Val Leu Val Trp Val Thr Asp Gly Gly
  25                      30                      35
tcc agc gac cct gtg ggc ccc ccc atg cag gag ctc aag gac ctg ggc      197
Ser Ser Asp Pro Val Gly Pro Pro Met Gln Glu Leu Lys Asp Leu Gly
  40                      45                      50                      55
gtc acc gtg ttc att gtc agc acc ggc cga kgc aac ttc ctg gag ctg      245
Val Thr Val Phe Ile Val Ser Thr Gly Arg Xaa Asn Phe Leu Glu Leu
                      60                      65                      70
tca gcc gct gcc tca gcc cc      265
Ser Ala Ala Ala Ser Ala
      75

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<210> 2201
 <211> 420
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 39..419

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<400> 2201
agctgcgctg ccggaggaaa cggaagaagg agcaagct atg gag ggg aac agg gat      56
                      Met Glu Gly Asn Arg Asp
                      1                      5
gag gct gag aaa tgt gtc gag atc gcc cgg gag gcc ctg aac gcc ggc      104
Glu Ala Glu Lys Cys Val Glu Ile Ala Arg Glu Ala Leu Asn Ala Gly
                      10                      15                      20
aac cgc gag aag gcc cag cgc ttc ctg cag aag gcc gag aag ctc tac      152
Asn Arg Glu Lys Ala Gln Arg Phe Leu Gln Lys Ala Glu Lys Leu Tyr
                      25                      30                      35
cca mtg cct tcg gcc cgc gca cta ttg gaa ata att atg aaa aat gga      200
Pro Xaa Pro Ser Ala Arg Ala Leu Leu Glu Ile Ile Met Lys Asn Gly
                      40                      45                      50
agc acg gct gga aat agc cct cat tgc cga aaa cca tca ggt agt ggc      248
Ser Thr Ala Gly Asn Ser Pro His Cys Arg Lys Pro Ser Gly Ser Gly
                      55                      60                      65                      70
gat caa agc aag cct aat tgc aca aag gac agc aca tct ggt agt ggt      296
Asp Gln Ser Lys Pro Asn Cys Thr Lys Asp Ser Thr Ser Gly Ser Gly
                      75                      80                      85
gaa ggt gga aaa ggc tat acc aaa gac caa gta gat gga gtt ctc agc      344
Glu Gly Gly Lys Gly Tyr Thr Lys Asp Gln Val Asp Gly Val Leu Ser
                      90                      95                      100
ata aac aaa tgt aaa aat yac kat gaa gta ctt gga gtt acg aaa gat      392
Ile Asn Lys Cys Lys Asn Xaa Xaa Glu Val Leu Gly Val Thr Lys Asp
                      105                      110                      115
gct ggt gat gaa gat ttg aaa aaa gct t      420
Ala Gly Asp Glu Asp Leu Lys Lys Ala
                      120                      125

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<210> 2202
 <211> 249

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 73..249

<400> 2202
aggactaggc acctctgcac gtccyscccc gccggaagtg gaggccgcgg gctctgagcg 60
gccccctgccc gg atg gca aca gta gtt cta gga gga gac acc atg ggc cct 111
Met Ala Thr Val Val Leu Gly Gly Asp Thr Met Gly Pro
1 5 10
gag cgt atc ttc ccc aat cag act gag gaa ctg gga cat cag ggc cct 159
Glu Arg Ile Phe Pro Asn Gln Thr Glu Glu Leu Gly His Gln Gly Pro
15 20 25
tca gaa ggc act ggg gat tgg agc agt gag gag cct gag gaa gag cag 207
Ser Glu Gly Thr Gly Asp Trp Ser Ser Glu Glu Pro Glu Glu Glu Gln
30 35 40 45
gag gaa acg ggg tgc ggc cca gct ggc tac tcc tac cag ccc 249
Glu Glu Thr Gly Ser Gly Pro Ala Gly Tyr Ser Tyr Gln Pro
50 55

<210> 2203
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 172..396

<400> 2203
ggcctcccc gaagtggccg gtccagagct gtgggggtggc ctccgcgcgg tctctggcsg 60
agtcgggggaa tcggatcaag gcgagaggat ccggcaggggaggagcttcg gggccggggg 120
ttgggccgca catttacgtg cgcgaaggan gtggaccggg agctggtgac g atg gcg 177
Met Ala
1
ggg ccg cag ccc ctg gcg ctg caa ctg gaa cag ttg ttg aac ccg cga 225
Gly Pro Gln Pro Leu Ala Leu Gln Leu Glu Gln Leu Leu Asn Pro Arg
5 10 15
cca agc gag gcg gac cct gaa gcg gac ccc gag gaa gcc act gct gcc 273
Pro Ser Glu Ala Asp Pro Glu Ala Asp Pro Glu Glu Ala Thr Ala Ala
20 25 30
agg gtg att gac agg ttt gat gaa ggg gaa gat ggg gaa ggt gat ttc 321
Arg Val Ile Asp Arg Phe Asp Glu Gly Glu Asp Gly Glu Gly Asp Phe
35 40 45 50
cta gta gtg ggt agc att aga aaa ctg gca tca gcc tcc ctc ttg gac 369
Leu Val Val Gly Ser Ile Arg Lys Leu Ala Ser Ala Ser Leu Leu Asp
55 60 65
acg gac aaa agg tat tgc ggc aaa acc ac 398
Thr Asp Lys Arg Tyr Cys Gly Lys Thr
70 75

<210> 2204
 <211> 353
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 84..353

<400> 2204
 aacttctcgg gaagatgagg cagtttggca tctgtggccg agttgctgtt gccgggtgat 60
 agttggagcg gagacttagc ata atg gca gaa cct gtt tct cca ctg aag cac 113
 Met Ala Glu Pro Val Ser Pro Leu Lys His
 1 5 10
 ttt gtg ctg gct aag aag gcg att act gca atc ttt gac cag tta ctg 161
 Phe Val Leu Ala Lys Lys Ala Ile Thr Ala Ile Phe Asp Gln Leu Leu
 15 20 25
 gag ttt gtt act gaa gga tca cat ttt gtt gaa gca aca tat aag aat 209
 Glu Phe Val Thr Glu Gly Ser His Phe Val Glu Ala Thr Tyr Lys Asn
 30 35 40
 ccg gaa ctt gat cga ata gcc act gaa gat gat ctg gta gaa atg caa 257
 Pro Glu Leu Asp Arg Ile Ala Thr Glu Asp Asp Leu Val Glu Met Gln
 45 50 55
 gga tat aaa gac aag ctt tcc atc att ggt gag nkg cta tct cgg aga 305
 Gly Tyr Lys Asp Lys Leu Ser Ile Ile Gly Glu Xaa Leu Ser Arg Arg
 60 65 70
 cac atg aag gtg gca ttt ttt ggc agg aca agc agt ggg aag agc tct 353
 His Met Lys Val Ala Phe Phe Gly Arg Thr Ser Ser Gly Lys Ser Ser
 75 80 85 90

<210> 2205
 <211> 294
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 101..292

<400> 2205
 gacccggcag tacggcaaat atggcgaggc atctgttgaa tcttcaagtc caggagggttc 60
 agcaacatca gatgaccatg aatttgatcc atcagctgac atg ctg gtt cat gat 115
 Met Leu Val His Asp
 1 5
 ktt gat gat gar cga aca tta gaa gag gaa gaa atg atg gaa gga gaa 163
 Xaa Asp Asp Glu Arg Thr Leu Glu Glu Glu Glu Met Met Glu Gly Glu
 10 15 20
 aca aac ttc agc tct gaa ata gaa gat ctt gca agg gaa ggc gac atg 211
 Thr Asn Phe Ser Ser Glu Ile Glu Asp Leu Ala Arg Glu Gly Asp Met
 25 30 35
 cca att cat gaa ctt ctc agc ctt tat ggt tat ggt agt act gtt cga 259

Pro Ile His Glu Leu Leu Ser Leu Tyr Gly Tyr Gly Ser Thr Val Arg
40 45 50

cta cct gaa gaa gat gag gaa gag gaa gaa gag ga 294

Leu Pro Glu Glu Asp Glu Glu Glu Glu Glu

55 60

<210> 2206

<211> 633

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 260..631

<400> 2206

acgtaaccgt tcaagcatcc ctcccttccca ggacacactc aaagcgtcag agcgggtccgc 60

tcttctcaag tcctattggc tcaagtccat gcgtctcatg gcactgccgg gtgagaggcg 120

gaaaaaggcc ttcccaggcg cgagaagatg acgtcacagt agcccggccg ggcgccgagg 180

ttgccttagg gctctctgcc cagtaacagg catcgaacgg tgcagactga agacgccctc 240

cgtcagcgac gccgtcgca atg gcc att tgt caa ttc ttc ctt caa ggc cgg 292

Met Ala Ile Cys Gln Phe Phe Leu Gln Gly Arg

1 5 10

tgc cgc ttt gga gat cgg tgc tgg aac gaa cat ccc ggt gct agg ggt 340

Cys Arg Phe Gly Asp Arg Cys Trp Asn Glu His Pro Gly Ala Arg Gly

15 20 25

gca gga gga gga cgg cag caa ccg cag cag cag cct tca ggt aat aat 388

Ala Gly Gly Gly Arg Gln Gln Pro Gln Gln Gln Pro Ser Gly Asn Asn

30 35 40

aga cgt gga tgg aat acn act agc cag aga tat tcc aat gtc atc cag 436

Arg Arg Gly Trp Asn Thr Thr Ser Gln Arg Tyr Ser Asn Val Ile Gln

45 50 55

cca tcc agt ttc tcc aaa tcc aca cca tgg ggg ggc agc aga gat caa 484

Pro Ser Ser Phe Ser Lys Ser Thr Pro Trp Gly Gly Ser Arg Asp Gln

60 65 70 75

gaa aag cca tat ttc agt tct ttt gat tct gga gct tca act aac agg 532

Glu Lys Pro Tyr Phe Ser Ser Phe Asp Ser Gly Ala Ser Thr Asn Arg

80 85 90

aag gaa ggc ttt gga ttg tct gag aac cca ttt gct tca ctt agt cct 580

Lys Glu Gly Phe Gly Leu Ser Glu Asn Pro Phe Ala Ser Leu Ser Pro

95 100 105

gat gag cag aaa gat gaa aag aaa ctt ctg gaa gga att gta aaa gat 628

Asp Glu Gln Lys Asp Glu Lys Lys Leu Leu Glu Gly Ile Val Lys Asp

110 115 120

atg ga 633

Met

<210> 2207

<211> 446

<212> DNA

<213> Homo sapiens

<220>

<221> CDS
<222> 88..444

<400> 2207

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ctctctcttc cgccgtcgtc gccgccatcc tcggcgcgac tcgcttcttt cggttctacc      60
tgggagaatc caccgccatc cgccacc atg gtg aac ttc acg gta gac cag atc      114
                Met Val Asn Phe Thr Val Asp Gln Ile
                1                5
cgc gcc atc atg gac aag aag gcc aac atc cgc aac atg tct gtc atc      162
Arg Ala Ile Met Asp Lys Lys Ala Asn Ile Arg Asn Met Ser Val Ile
10                15                20                25
gcc cac gtg gac cat ggc aag tcc acg ctg aca gac tcc ctg gtg tgc      210
Ala His Val Asp His Gly Lys Ser Thr Leu Thr Asp Ser Leu Val Cys
                30                35                40
aag gcg ggc atc atc gcc tcg gcc cgg gcc ggg gag aca cgc ttc act      258
Lys Ala Gly Ile Ile Ala Ser Ala Arg Ala Gly Glu Thr Arg Phe Thr
                45                50                55
gat acc cgg aag gac gag cag gag cgt tgc atc acc atc aag tca act      306
Asp Thr Arg Lys Asp Glu Gln Glu Arg Cys Ile Thr Ile Lys Ser Thr
                60                65                70
gcc atc tcc ctc ttc tac gag ctc tcg gag aat gac ttg aac ttc atc      354
Ala Ile Ser Leu Phe Tyr Glu Leu Ser Glu Asn Asp Leu Asn Phe Ile
                75                80                85
aag cag agc aag gac ggt gcc ggc ttc ctc atc aac ctc akt gac tcc      402
Lys Gln Ser Lys Asp Gly Ala Gly Phe Leu Ile Asn Leu Xaa Asp Ser
                90                95                100                105
ccc ggg cat gtc gac ttc tcc tcg gag gtg act gct gcc ctc cg      446
Pro Gly His Val Asp Phe Ser Ser Glu Val Thr Ala Ala Leu
                110                115

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<210> 2208
<211> 322
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 28..321

<400> 2208

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ctagctgcag ccggagcctg ggagacg atg cat cac tgt aag cga tac cgc tcc      54
                Met His His Cys Lys Arg Tyr Arg Ser
                1                5
cct gaa cca gac ccg tac ctg agc tac cga tgg aag agg agg agg tcc      102
Pro Glu Pro Asp Pro Tyr Leu Ser Tyr Arg Trp Lys Arg Arg Arg Ser
10                15                20                25
tac agt cgg gaa cat gaa ggg aga ctg cga tac ccg tcc cga agg asr      150
Tyr Ser Arg Glu His Glu Gly Arg Leu Arg Tyr Pro Ser Arg Arg Xaa
                30                35                40
cct ccc cca cga aga tct cgg tcc aga agc cat gac cgc ctg ccc tac      198
Pro Pro Pro Arg Arg Ser Arg Ser Arg Ser His Asp Arg Leu Pro Tyr
                45                50                55

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THE

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<220>  
<221> CDS  
<222> 50..343
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<210> 2210
<211> 403
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 233..403
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1453

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 ggcactttgc aatatatttt tccgcctttt ctggaaggat ttcgctgctt cccgaagtct 120
 tggacgagcg ctctagctct gtgggaagggt tttgggctct ctggctcgga ttttgcaatt 180
 tctccctggg gactgccgtg gagccgcata cactgtggat tataattgca ac atg acg 238
 Met Thr
 1
 ctg gaa gag ctc gtg gcg tgc gac aac gcg gcg cag aag atg cag acg 286
 Leu Glu Glu Leu Val Ala Cys Asp Asn Ala Ala Gln Lys Met Gln Thr
 5 10 15
 gtg acc gcc gcg gtg gag gag ctt ttg gtg gcc gct cag cgc cag gat 334
 Val Thr Ala Ala Val Glu Glu Leu Leu Val Ala Ala Gln Arg Gln Asp
 20 25 30
 cgc ctc aca gtg ggg gtg tac gag tgc gcc aag ttg atg aat gtg gac 382
 Arg Leu Thr Val Gly Val Tyr Glu Ser Ala Lys Leu Met Asn Val Asp
 35 40 45 50
 cca gac agc gtg gtc ctc tgc 403
 Pro Asp Ser Val Val Leu Cys
 55

<210> 2211
 <211> 492
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 52..492

<400> 2211
 aagggccgga ccgcagctgt gctcgtttcc ggaagtggct tctgcgacaa c atg ctt 57
 Met Leu
 1
 gcg gac ctc ggc tta atc gga acc ata ggc gag gat gac gag gtg ccg 105
 Ala Asp Leu Gly Leu Ile Gly Thr Ile Gly Glu Asp Asp Glu Val Pro
 5 10 15
 gtg gag ccc gag tct gac tcc ggg gac gag gaa gag gag ggg ccc att 153
 Val Glu Pro Glu Ser Asp Ser Gly Asp Glu Glu Glu Glu Gly Pro Ile
 20 25 30
 gtg ctg ggc aga cga caa aaa gct ttg ggg aag aac cgc agt gct gat 201
 Val Leu Gly Arg Arg Gln Lys Ala Leu Gly Lys Asn Arg Ser Ala Asp
 35 40 45 50
 ttc aac cct gat ttc gtt ttc act gag aag gag ggg acg tac gat ggc 249
 Phe Asn Pro Asp Phe Val Phe Thr Glu Lys Glu Gly Thr Tyr Asp Gly
 55 60 65
 agc tgg gcc ctg gct gat gtc atg agc caa ctc aag aag aag agg gca 297
 Ser Trp Ala Leu Ala Asp Val Met Ser Gln Leu Lys Lys Lys Arg Ala
 70 75 80
 gcc act aca tta gat gag aag att gag aaa ttt cga aag aaa agg aaa 345
 Ala Thr Thr Leu Asp Glu Lys Ile Glu Lys Phe Arg Lys Lys Arg Lys
 85 90 95
 aca gag gat aaa gaa gcc aag tct ggg aag ttg gaa aag gag aaa gaa 393
 Thr Glu Asp Lys Glu Ala Lys Ser Gly Lys Leu Glu Lys Glu Lys Glu
 100 105 110

gca aag gaa ggc tct gaa cca aag gag cag gaa gac ctt caa gag aat	441
Ala Lys Glu Gly Ser Glu Pro Lys Glu Gln Glu Asp Leu Gln Glu Asn	
115 120 125 130	
gat gag gaa ggc tca gaa gat gaa gcc tcg gag act gac tac tca tca	489
Asp Glu Glu Gly Ser Glu Asp Glu Ala Ser Glu Thr Asp Tyr Ser Ser	
135 140 145	
gct	492
Ala	

<210> 2212
 <211> 195
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 32..193

<400> 2212	
tgttttggcg tccgtttgct gcggtaggaa c atg gcg gat cgg ctc acg cag	52
Met Ala Asp Arg Leu Thr Gln	
1 5	
ctt cag gac gct gtg aat tcg ctt gca gat cag ttt tgt aat gcc att	100
Leu Gln Asp Ala Val Asn Ser Leu Ala Asp Gln Phe Cys Asn Ala Ile	
10 15 20	
gga gta ttg cag caa tgt ggt cct cct gcc tct ttc aat aat att cag	148
Gly Val Leu Gln Gln Cys Gly Pro Pro Ala Ser Phe Asn Asn Ile Gln	
25 30 35	
aca gca att aac aaa gac cag cca gct aac cct aca gaa gag tat gc	195
Thr Ala Ile Asn Lys Asp Gln Pro Ala Asn Pro Thr Glu Glu Tyr	
40 45 50	

<210> 2213
 <211> 197
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 15..197

<400> 2213	
gcgggtaaag agac atg gcc ggc gaa gga gat cag cag gac gct gcg cac	50
Met Ala Gly Glu Gly Asp Gln Gln Asp Ala Ala His	
1 5 10	
aac atg ggc aac cac ctg ccg ctc ctg cct gca gag agt gag gaa gaa	98
Asn Met Gly Asn His Leu Pro Leu Leu Pro Ala Glu Ser Glu Glu Glu	
15 20 25	
gat gaa atg gaa gtt gaa gac cag gat agt aaa gaa gcc aaa aaa cca	146
Asp Glu Met Glu Val Glu Asp Gln Asp Ser Lys Glu Ala Lys Lys Pro	
30 35 40	
aac atc ata aat ttt gac acc agt ctg ccg aca tca cat aca tac cta	194

Asn Ile Ile Asn Phe Asp Thr Ser Leu Pro Thr Ser His Thr Tyr Leu
 45 50 55 60

ggt
 Gly

197

<210> 2214
 <211> 444
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 150..443

<400> 2214
 ctccattggg cacatctggg aggaaggcaa cctcctttgt cgtcttgttg gtaccagtca 60
 ttctcaagta tctctgacac ctgtggtggg tcagtttgct gagcctgccca cctggtatga 120
 attagrctgg gtgtratgaa cattcatcc atg gat ata ccc tac cat ttt gcg 173
 Met Asp Ile Pro Tyr His Phe Ala
 1 5
 ttg cct tat aac caa ggc aca ctc ccc ata aga gtt tac tgc aga gaa 221
 Leu Pro Tyr Asn Gln Gly Thr Leu Pro Ile Arg Val Tyr Cys Arg Glu
 10 15 20
 aga aca gca aaa cag cca ccc tcc ttg aat tta caa ctc att atc tgc 269
 Arg Thr Ala Lys Gln Pro Pro Ser Leu Asn Leu Gln Leu Ile Ile Cys
 25 30 35 40
 aac agg ttt tct tta aat cca aga cac agg atg gga aat gns ttt ccc 317
 Asn Arg Phe Ser Leu Asn Pro Arg His Arg Met Gly Asn Xaa Phe Pro
 45 50 55
 cac cag gta ctc aga ggt ctg cag gaa gtg act ccc ggg caa ggc aga 365
 His Gln Val Leu Arg Gly Leu Gln Glu Val Thr Pro Gly Gln Gly Arg
 60 65 70
 ctt cag trn tcc ctg aag cgt gas atg tgg act gca tgg ctg ggt ggg 413
 Leu Gln Xaa Ser Leu Lys Arg Xaa Met Trp Thr Ala Trp Leu Gly Gly
 75 80 85
 gac tgg tgg atg tct ctg gag ctc cag aam c 444
 Asp Trp Trp Met Ser Leu Glu Leu Gln Xaa
 90 95

<210> 2215
 <211> 235
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 24..233

<400> 2215
 acaataatca ctgaacattg aat atg aag gtg tcg gct cta acg tgg cct cag 53
 Met Lys Val Ser Ala Leu Thr Trp Pro Gln
 1 5 10

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ctc gag gtt cag ggg aaa gag aaa cag tcc agc agt cag agg scc ttg      101
Leu Glu Val Gln Gly Lys Glu Lys Gln Ser Ser Ser Gln Arg Xaa Leu
               15                      20                      25
gat gga gtc ctg ctg tcg ccc agg ctg gag tgc aat ggc aca atc tcg      149
Asp Gly Val Leu Leu Ser Pro Arg Leu Glu Cys Asn Gly Thr Ile Ser
               30                      35                      40
gct cac tgc aac ctc cac ctt ctg ggt tca agt gat tct cct gcc tca      197
Ala His Cys Asn Leu His Leu Leu Gly Ser Ser Asp Ser Pro Ala Ser
               45                      50                      55
gcc tcc caa gta gca ggg gtt aca ggt gcc cgc cat ca      235
Ala Ser Gln Val Ala Gly Val Thr Gly Ala Arg His
               60                      65                      70

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<210> 2216
 <211> 256
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 34..255

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<400> 2216
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                        Met Phe Phe Leu Asn Ile Ala
                        1                      5
atg ttc att gtg gta atg gtg cag atc tgt ggg agg aat ggc aag aga      102
Met Phe Ile Val Val Met Val Gln Ile Cys Gly Arg Asn Gly Lys Arg
               10                      15                      20
agc aac cgg acc ctg aga gaa gaa gtg tta agg aac ctg cgc agt gtg      150
Ser Asn Arg Thr Leu Arg Glu Glu Val Leu Arg Asn Leu Arg Ser Val
               25                      30                      35
gtt agc ttg acc ttt ctg ttg ggc atg aca tgg ggt ttt gca ttc ttt      198
Val Ser Leu Thr Phe Leu Leu Gly Met Thr Trp Gly Phe Ala Phe Phe
               40                      45                      50                      55
gcc tgg gga ccc tta aat atc ccc ttc atg tac ctc ttc tcc atc ttc      246
Ala Trp Gly Pro Leu Asn Ile Pro Phe Met Tyr Leu Phe Ser Ile Phe
               60                      65                      70
aat tca tta c      256
Asn Ser Leu

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<210> 2217
 <211> 427
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 21..425

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<400> 2217
agtgtgatgg aggagagaag atg gcg gaa gcg gaa ttt aag gac cat agt aca      53

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cgm aac cgg gcg gcg gac ctg cgg mag gac tww aac ctg atg gag cag 620
 Arg Asn Arg Ala Ala Asp Leu Arg Xaa Asp Xaa Asn Leu Met Glu Gln
 35 40 45 50
 aag aag cgc gtc acc atg 638
 Lys Lys Arg Val Thr Met
 55

<210> 2219
 <211> 305
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 135..305

<400> 2219
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 gcggccggga gcccttaggg aggcagacag agcctgcagc caatgccccca ggagccctcg 120
 gttccaacca actg atg ccc ctg tgc cca ctg gcc cac gcc atg cag ccc 170
 Met Pro Leu Cys Pro Leu Ala His Ala Met Gln Pro
 1 5 10
 cag tcc gtt ctg cac agc ggc tac ttc cac cca cta ctt cgg gcc tgg 218
 Gln Ser Val Leu His Ser Gly Tyr Phe His Pro Leu Leu Arg Ala Trp
 15 20 25
 cag aca gcc acc acc acc ctc aat gcc tcc aac ctc atc tac ccc atc 266
 Gln Thr Ala Thr Thr Thr Leu Asn Ala Ser Asn Leu Ile Tyr Pro Ile
 30 35 40
 ttt gtc acg gat gtt cct gat gac ata cag cct atc acc 305
 Phe Val Thr Asp Val Pro Asp Asp Ile Gln Pro Ile Thr
 45 50 55

<210> 2220
 <211> 332
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 3..332

<400> 2220
 ca atg csc atg cgc gar gcg cga gcg gtt tct ccc aac aca gtg gtt 47
 Met Xaa Met Arg Glu Ala Arg Ala Val Ser Pro Asn Thr Val Val
 1 5 10 15
 ccc acg gtt gtc ttg gaa acc aga ccc cga ggc ttg gca gag cag gag 95
 Pro Thr Val Val Leu Glu Thr Arg Pro Arg Gly Leu Ala Glu Gln Glu
 20 25 30
 ccc tcg gtg gca gtg ctt ggg tgt cga ggc tct gag gct ccg gcc tca 143
 Pro Ser Val Ala Val Leu Gly Cys Arg Gly Ser Glu Ala Pro Ala Ser
 35 40 45
 cct cyc cac rgg gtc gaa ggs aac gtc tcc gga tgc cag sas tcg caa 191

Pro	Xaa	His	Xaa	Val	Glu	Gly	Asn	Val	Ser	Gly	Cys	Gln	Xaa	Ser	Gln	
	50						55					60				
agg	gcc	gac	cat	gat	gat	gaa	acc	cca	ggc	rga	gac	skg	gaa	gca	rca	239
Arg	Ala	Asp	His	Asp	Asp	Glu	Thr	Pro	Gly	Xaa	Asp	Xaa	Glu	Ala	Xaa	
	65					70				75						
cgg	gat	ccc	agc	ctc	agg	cct	gca	cgg	acg	gtg	ttg	ggt	ggg	tca	ctg	287
Arg	Asp	Pro	Ser	Leu	Arg	Pro	Ala	Arg	Thr	Val	Leu	Val	Gly	Ser	Leu	
80					85				90					95		
tca	tgg	cta	aga	aag	caa	ctc	caa	ccc	aca	cac	tgc	aaa	tat	gaa		332
Ser	Trp	Leu	Arg	Lys	Gln	Leu	Gln	Pro	Thr	His	Cys	Lys	Tyr	Glu		
				100					105					110		

<210> 2221
 <211> 281
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 109..279

<400> 2221															
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cgggatgaag	gcggasttcc	ccctgggcct	ggggcagtgg	ggagggaa	atg acc aaa		117								
					Met Thr Lys										
					1										
gaa gaa aag ctg cag ctt	cgg aag gaa aag aaa	cag cag aag aag aaa		165											
Glu Glu Lys Leu Gln Leu	Arg Lys Glu Lys Lys	Gln Gln Lys Lys Lys													
5	10	15													
cgg aag gaa gaa aag	ggg gca gaa cca gag	act ggc tct gct gta tct	213												
Arg Lys Glu Glu Lys	Gly Ala Glu Pro Glu Thr	Gly Ser Ala Val Ser													
20	25	30	35												
gca gcc caa tgt caa gta	ggc cca acc aga gaa	ctg cca gaa tgc ggc	261												
Ala Ala Gln Cys Gln Val	Gly Pro Thr Arg Glu	Leu Pro Glu Ser Gly													
	40	45	50												
att cag ttg ggc act cct	cg		281												
Ile Gln Leu Gly Thr Pro															
	55														

<210> 2222
 <211> 423
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 70..423

<400> 2222															
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ggggcgggt	atg gga cta gct	ggc gtg tgc gcc	ctg aga cgc	tca gcg ggc			111								
		Met Gly Leu Ala Gly	Val Cys Ala Leu	Arg Arg Ser Ala	Gly										

	1		5		10	
tat	ata	ctc	gtc	ggg	ggc	ggc
Tyr	Ile	Leu	Val	Gly	Gly	Ala
15				20		25
aga	cgg	tgc	agt	gaa	gga	gag
Arg	Arg	Cys	Ser	Glu	Gly	Trp
			35		40	
agc	aga	gcc	gct	gca	gcc	atg
Ser	Arg	Ala	Ala	Ala	Met	Ala
			50		55	
gat	ccc	act	ggg	gcc	ttt	ggg
Asp	Pro	Thr	Gly	Ala	Phe	Gly
			65		70	
tcg	ctg	gtg	tcc	atc	ttt	ggg
Ser	Leu	Val	Ser	Ile	Phe	Gly
			80		85	
gtg	gta	cag	gat	ggc	ata	gtg
Val	Val	Gln	Asp	Gly	Ile	Val
95				100		105
aca	ggc	ctc	acc	tgc	agc	ctg
Thr	Gly	Leu	Thr	Cys	Ser	Leu
				115		

<210> 2223
 <211> 436
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 135..434

<400> 2223	
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agtgtctggac cctgagtgat ggggccggcg ccagctggag agcagcttcg cggagsactg	120
gagagccaga ggtg atg gaa cca gcc ctg gaa ggc aca ggc aaa gag ggg	170
Met Glu Pro Ala Leu Glu Gly Thr Gly Lys Glu Gly	
1 5 10	
aag aaa gca tcc tcc agg aag cgt aca ttg gct gaa cct cca gcg aag	218
Lys Lys Ala Ser Ser Arg Lys Arg Thr Leu Ala Glu Pro Pro Ala Lys	
15 20 25	
ggc ctc ctg cag cca gtg aag ctc agc agg gca gaa ctg tac aag gag	266
Gly Leu Leu Gln Pro Val Lys Leu Ser Arg Ala Glu Leu Tyr Lys Glu	
30 35 40	
cct acc aat gag gag ctt aat cgc ctt cgg gag act gag atc ttg ttc	314
Pro Thr Asn Glu Glu Leu Asn Arg Leu Arg Glu Thr Glu Ile Leu Phe	
45 50 55 60	
cac tcc agc ttg ctt cgt tta cag gta gag gag cta cta aag gaa gta	362
His Ser Ser Leu Leu Arg Leu Gln Val Glu Glu Leu Leu Lys Glu Val	
65 70 75	
agg ctg tca gag aag aag aag gat cgg att gat gcc ttc cta cgg gag	410
Arg Leu Ser Glu Lys Lys Lys Asp Arg Ile Asp Ala Phe Leu Arg Glu	
80 85 90	

gtc aac cag cgg gtt gtn arg gtg cc
 Val Asn Gln Arg Val Val Xaa Val
 95 100

436

<210> 2224
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 155..340

<400> 2224
 ttttcttctc gtcggtgttc ccggctgcta tagagccggg tgagagagcg agcgcccgtc 60
 ggcgggtgtc gagggcggtg tgcctcgcgc tgacccttcc cgccctcctt ctgctcacac 120
 accaggtccc cgcggaagcc gcggtgtcgg cgcc atg gcg gag ctg acg gct ctt 175
 Met Ala Glu Leu Thr Ala Leu
 1 5
 gag agt ctc atc gag atg ggc ttc ccc agg gga cgc gcg gag aag gct 223
 Glu Ser Leu Ile Glu Met Gly Phe Pro Arg Gly Arg Ala Glu Lys Ala
 10 15 20
 ctg gcc ctc aca ggg aac cag ggc atc gag gct gcg atg gac tgg ctg 271
 Leu Ala Leu Thr Gly Asn Gln Gly Ile Glu Ala Ala Met Asp Trp Leu
 25 30 35
 atg gag cac gaa gac gac ccc gat gtg gac gag cct tta gag act ccc 319
 Met Glu His Glu Asp Asp Pro Asp Val Asp Glu Pro Leu Glu Thr Pro
 40 45 50 55
 ctt gga cat atc ctg rga cgg ga 342
 Leu Gly His Ile Leu Xaa Arg
 60

<210> 2225
 <211> 431
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 104..430

<400> 2225
 agttggaggg aggcagggaa tctggcttga ttggcgtgct gagacgcacc tggcgcaacc 60
 ctcccttctg aatcgaagtt caagtccgc ggacactgca acc atg aag gag aga 115
 Met Lys Glu Arg
 1
 cgg gcc ccc cag cca gtc gtg gcc aga tgt aag ctc gtt ctg gtc ggg 163
 Arg Ala Pro Gln Pro Val Val Ala Arg Cys Lys Leu Val Leu Val Gly
 5 10 15 20
 gac gtg cag tgt ggg aag acc gcg atg ttg caa gtg tta gcg aag gat 211
 Asp Val Gln Cys Gly Lys Thr Ala Met Leu Gln Val Leu Ala Lys Asp
 25 30 35

tgc tat cca gag acc tat gtg ccc acc gtg ttc gaa aat tac aca gcc	259
Cys Tyr Pro Glu Thr Tyr Val Pro Thr Val Phe Glu Asn Tyr Thr Ala	
40 45 50	
tgt ttg gag aca gag gaa cag agg gtg gag ctt agt ctc tgg gat acc	307
Cys Leu Glu Thr Glu Glu Gln Arg Val Glu Leu Ser Leu Trp Asp Thr	
55 60 65	
tca gga tcn ncc krc tac gat aat gtc cgt cca ctc tgc tac agc gac	355
Ser Gly Ser Xaa Xaa Tyr Asp Asn Val Arg Pro Leu Cys Tyr Ser Asp	
70 75 80	
tcg gat gca gta tta cta tgt ttw rac atc agc cgt cca gag aca gtg	403
Ser Asp Ala Val Leu Leu Cys Xaa Xaa Ile Ser Arg Pro Glu Thr Val	
85 90 95 100	
gac agc gca ctc aag aag tgg agg aca g	431
Asp Ser Ala Leu Lys Lys Trp Arg Thr	
105	

<210> 2226
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 81..299

<400> 2226	
aggatggagg gcgaggcctg gcagctgtag tgcttctggg cagtagaggc gcgggggtgcg	60
gastasggcg gccgagagcc atg gcg gcg cta ttg gcg gcg gcg gca gtg cga	113
Met Ala Ala Leu Leu Ala Ala Ala Ala Val Arg	
1 5 10	
gcc cgg atc ctg cag gtt tct tcc aag gtg aaa tcc agt ccc acc tgg	161
Ala Arg Ile Leu Gln Val Ser Ser Lys Val Lys Ser Ser Pro Thr Trp	
15 20 25	
tat tca gca tct tcc ttc tct tca gtg cca act gta aag ctc ttc	209
Tyr Ser Ala Ser Ser Phe Ser Ser Ser Val Pro Thr Val Lys Leu Phe	
30 35 40	
att ggt ggg aaa ttc gtt gaa tcc aaa agt gac aaa tgg atc gat atc	257
Ile Gly Gly Lys Phe Val Glu Ser Lys Ser Asp Lys Trp Ile Asp Ile	
45 50 55	
cac aac cca gcc acc aat gag gtc att ggt cgg gtc cct cag gc	301
His Asn Pro Ala Thr Asn Glu Val Ile Gly Arg Val Pro Gln	
60 65 70	

<210> 2227
 <211> 441
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 236..439

<400> 2227

actcctagct catctgggcg gcggcggcaa ctggggacag ggcgggtggc gcatcaccgg 60
 cgcgaggca ggaggagcag tctcattgtt ccgggagccg tcaccacagt aggtccctcg 120
 gctcagtcgg cccagcccct ctcagtcctc cccaaccccc acaaccgccc gcggtctctga 180
 gacgcggccc cggcgggcggc ggcagcagct gcagcatcat ctccaccctc cagcc atg 238
 Met

1
 gaa gac ctg gac cag tct cct ctg gtc tgc tcc tgc gac agc cca ccc 286
 Glu Asp Leu Asp Gln Ser Pro Leu Val Ser Ser Ser Asp Ser Pro Pro
 5 10 15
 cgg ccg cag ccc gcg ttc aag tac cag ttc gtg agg gag ccc gag gac 334
 Arg Pro Gln Pro Ala Phe Lys Tyr Gln Phe Val Arg Glu Pro Glu Asp
 20 25 30
 gag gag gaa gaa gag gag gag gaa gag gag gac gag gac gaa gac ctg 382
 Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Asp Glu Asp Glu Asp Leu
 35 40 45
 gag gag ctg gag gtg ctg gag agg aag ccc gcc gcc ggg ctg tcc gcg 430
 Glu Glu Leu Glu Val Leu Glu Arg Lys Pro Ala Ala Gly Leu Ser Ala
 50 55 60 65
 gcc cca gtg cc 441
 Ala Pro Val

<210> 2228

<211> 461

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 59..460

<400> 2228

gcaggacccc aagtgggggt cscggakyca gagggccaat tcctgtcccc ccagcagc 58
 atg gca tgc tgt gct gaa ccc tct gag ccc tct gcc cca ctg ccc gcc 106
 Met Ala Ser Cys Ala Glu Pro Ser Glu Pro Ser Ala Pro Leu Pro Ala
 1 5 10 15
 ggg gtc cca ccr ctc gag gac ttc gag gta ctg gat ggg gtt gag gat 154
 Gly Val Pro Pro Leu Glu Asp Phe Glu Val Leu Asp Gly Val Glu Asp
 20 25 30
 gca gag ggt gag gag gaa gag gag gag gaa gag gag gaa gag gat gac 202
 Ala Glu Gly Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp
 35 40 45
 ctg agt gag ctg cca ccg ctg gag gac atg gga caa ccc ccg gcg gag 250
 Leu Ser Glu Leu Pro Pro Leu Glu Asp Met Gly Gln Pro Pro Ala Glu
 50 55 60
 gag gct gag cag cct ggg gcc ctg gcc cga gag ttc ctt gct gcc atg 298
 Glu Ala Glu Gln Pro Gly Ala Leu Ala Arg Glu Phe Leu Ala Ala Met
 65 70 75 80
 gag ccc gag ccc gcc cca gcc ccg gcc cca sma gag tgg ctg gac att 346
 Glu Pro Glu Pro Ala Pro Ala Pro Ala Pro Xaa Glu Trp Leu Asp Ile
 85 90 95
 ctg ggg aac ggg ctg ttg agg aag aag acg ctg gtc cca ggg ccg cca 394
 Leu Gly Asn Gly Leu Leu Arg Lys Lys Thr Leu Val Pro Gly Pro Pro

	100		105		110	
ngt	tcg	agc	gcc	ggt	caa	ggc
Xaa	Ser	Ser	Ala	Gly	Gln	Gly
	115		120		125	
tcg	ctg	gag	aat	gca	cac	g
Ser	Leu	Glu	Asn	Ala	His	
	130					

442

461

<210> 2229
 <211> 426
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 39..425

<400> 2229	
agcgacagcc tgctaggatc agcgggtggtg gttccgcg atg gta ggc ggc ggc ggc	56
Met Val Gly Gly Gly Gly	
1 5	
gtc ggc ggc ggc ctc ctg gag aat gcc aac ccc ctc atc tac cag cgc	104
Val Gly Gly Gly Leu Leu Glu Asn Ala Asn Pro Leu Ile Tyr Gln Arg	
10 15 20	
tct ggg gag cgg cct gtg acg gca ggc gag gag gac gag cag gtt ccc	152
Ser Gly Glu Arg Pro Val Thr Ala Gly Glu Glu Asp Glu Gln Val Pro	
25 30 35	
gac agc atc gac gca cgc gag atc ttc gat ctg att cgc tcc atc aat	200
Asp Ser Ile Asp Ala Arg Glu Ile Phe Asp Leu Ile Arg Ser Ile Asn	
40 45 50	
gac ccg gag cat cca ctg acg cta gag gag ttg aac gta gta gag cag	248
Asp Pro Glu His Pro Leu Thr Leu Glu Glu Leu Asn Val Val Glu Gln	
55 60 65 70	
gtg cgg gtt cag gtt agc gac ccc gag agt aca gtg gct gtg gct ttc	296
Val Arg Val Gln Val Ser Asp Pro Glu Ser Thr Val Ala Val Ala Phe	
75 80 85	
aca cca acc att ccg cac tgc agc atg gcc acc ctt att ggt ctg tcc	344
Thr Pro Thr Ile Pro His Cys Ser Met Ala Thr Leu Ile Gly Leu Ser	
90 95 100	
atc aag gtc aan stt ctg cgc tcc ctt cct cag cgt ttc aag atg gac	392
Ile Lys Val Xaa Xaa Leu Arg Ser Leu Pro Gln Arg Phe Lys Met Asp	
105 110 115	
gtg cac att act ccg ggg acc cat gcc tca gag c	426
Val His Ile Thr Pro Gly Thr His Ala Ser Glu	
120 125	

<210> 2230
 <211> 368
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 198..368

<400> 2230

agggttggttc agcccccgtc tacactgggg tggtgcttag ccggcgccac accgaccctc 60
gacttcggag aggcagcgcg gttcctctgg gtgcttccgc ctcccccttct cctgcttctc 120
cagcctcttc ggctcctcg cccgcccgcg gaacccgaga cccagtgta tgccccaccc 180
ctgaccccg cgcgcac atg tcc acc ccg gct cgg cgg cgc ctc atg cgg 230

Met Ser Thr Pro Ala Arg Arg Arg Leu Met Arg

1 5 10

gac ttc aag agg ttg cag gag gat cct cca gcc gga gtc agc ggg gct 278
Asp Phe Lys Arg Leu Gln Glu Asp Pro Pro Ala Gly Val Ser Gly Ala

15 20 25

ccg tcc gag aac aac ata atg gtg tgg aac gcg gtc att ttc ggg cct 326
Pro Ser Glu Asn Asn Ile Met Val Trp Asn Ala Val Ile Phe Gly Pro

30 35 40

gaa ggg acc ccg ttt gag gat gga aca ttt aaa ctt aca ata 368
Glu Gly Thr Pro Phe Glu Asp Gly Thr Phe Lys Leu Thr Ile

45 50 55

<210> 2231

<211> 459

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 126..458

<400> 2231

attcattgtc ttgacaagag catcttcagc gggcgagtcc ccggctcctc cagctccttc 60
ctcctcttcc tctcctcct ccacctccgg cttttggggg atcactgtcc tctctcgga 120
gcaga atg agc ccg cag gtg gtc cgc tcc agc aag ttc cgc cac gtg ttt 170

Met Ser Arg Gln Val Val Arg Ser Ser Lys Phe Arg His Val Phe

1 5 10 15

gga cag ccg gcc aag gcc gac cag tgc tat gaa gat gtg cgc gtc tca 218
Gly Gln Pro Ala Lys Ala Asp Gln Cys Tyr Glu Asp Val Arg Val Ser

20 25 30

cag acc acc tgg gac agt ggc ttc tgt gct gtc aac cct aag ttt gtg 266
Gln Thr Thr Trp Asp Ser Gly Phe Cys Ala Val Asn Pro Lys Phe Val

35 40 45

gcc ctg atc tgt gag gcc agc ggg gga ggg gcc ttc ctg gtg ctg ccc 314
Ala Leu Ile Cys Glu Ala Ser Gly Gly Gly Ala Phe Leu Val Leu Pro

50 55 60

ctg ggc aag act gga cgt gtg gac aag aat gcg ccc acg gtc tgt ggc 362
Leu Gly Lys Thr Gly Arg Val Asp Lys Asn Ala Pro Thr Val Cys Gly

65 70 75

cac aca gcc cct gtg cta gac atc gmm tgg tgc ccg cac aat gac aac 410
His Thr Ala Pro Val Leu Asp Ile Xaa Trp Cys Pro His Asn Asp Asn

80 85 90 95

gtc att gcy agt ggs tcc gag gac tgc aca gtc atg gtg tkg gag atc c 459
Val Ile Ala Ser Gly Ser Glu Asp Cys Thr Val Met Val Xaa Glu Ile

100 105 110

<210> 2232
 <211> 313
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 136..312

<400> 2232
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 gccagctcaa gcccgcagct cgcagggaga tccagctccg tcctgcctgc agcagcmcaa 120
 ccctgcacac ccacc atg gat gtc ttc aag aag ggc ttc tcc atc gcc aag 171
 Met Asp Val Phe Lys Lys Gly Phe Ser Ile Ala Lys
 1 5 10
 gag ggc gtg gtg ggt gcg gtg gaa aag acc aag cag ggg gtg acg gaa 219
 Glu Gly Val Val Gly Ala Val Glu Lys Thr Lys Gln Gly Val Thr Glu
 15 20 25
 gca gct gag aag acc aag gag ggg gtc atg tat gtg gga gcc aag acc 267
 Ala Ala Glu Lys Thr Lys Glu Gly Val Met Tyr Val Gly Ala Lys Thr
 30 35 40
 aag gag aat gtt gta cag agc gtg acc tca gtg gcc gag aag acc a 313
 Lys Glu Asn Val Val Gln Ser Val Thr Ser Val Ala Glu Lys Thr
 45 50 55

<210> 2233
 <211> 460
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 136..459

<400> 2233
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 gggccgctgc tgtctgcagt tctaggcttg tagcctttgc actaaccctg ccgcagtaca 120
 tatccagcca tactc atg gac ccc agt gat ttc ccc agt cca ttt gac cca 171
 Met Asp Pro Ser Asp Phe Pro Ser Pro Phe Asp Pro
 1 5 10
 ttg acc ctg cca gag aag ccc ctg gct gga gac cta cca gta gac atg 219
 Leu Thr Leu Pro Glu Lys Pro Leu Ala Gly Asp Leu Pro Val Asp Met
 15 20 25
 gaa ttt gga gag gat cta ctg gaa tcc cag act gcc cca act cga gga 267
 Glu Phe Gly Glu Asp Leu Leu Glu Ser Gln Thr Ala Pro Thr Arg Gly
 30 35 40
 tgg gcc ccc cct ggc cct tct cca tcc tcg gga gcc ctg gac ctg ctt 315
 Trp Ala Pro Pro Gly Pro Ser Pro Ser Ser Gly Ala Leu Asp Leu Leu
 45 50 55 60
 gat acc cct gct ggc ctg gaa aaa gac cct gga gtc ctg gat gga gcc 363
 Asp Thr Pro Ala Gly Leu Glu Lys Asp Pro Gly Val Leu Asp Gly Ala

004220"666E5560

	65		70		75	
act	gag	ttg	ctg	ggg	ctg	ggg
Thr	Glu	Leu	Leu	Gly	Leu	Gly
	80		85		90	
ccg	gag	gtg	gac	cac	ggt	cct
Pro	Glu	Val	Asp	His	Gly	Pro
	95		100		105	

<210> 2234
 <211> 289
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 31..288

<400> 2234	
agtgcctggc accttgtagc tattcacttc atg acg gaa tgg atg aac gag gct	54
	Met Thr Glu Trp Met Asn Glu Ala
	1 5
gtt ctt tta gat tgg gct ctg tca cgg gca gcc ctg agg ttt tct gca	102
Val Leu Leu Asp Trp Ala Leu Ser Arg Ala Ala Leu Arg Phe Ser Ala	
	10 15 20
cgt atg tgt gct gag ccc ctg tct ttc tgg tgt tgg cag gac gag cag	150
Arg Met Cys Ala Glu Pro Leu Ser Phe Trp Cys Trp Gln Asp Glu Gln	
	25 30 35 40
ctg agg gcc ctg gtg agg cag ttt gga cag cag gac tgg aag ttc ctg	198
Leu Arg Ala Leu Val Arg Gln Phe Gly Gln Gln Asp Trp Lys Phe Leu	
	45 50 55
gcc agc cac ttc cct aac cgc act gac cag caa tgc cag tac agg tgg	246
Ala Ser His Phe Pro Asn Arg Thr Asp Gln Gln Cys Gln Tyr Arg Trp	
	60 65 70
ctg aga gtt ttg aat cca gac ctt gtc aag ggg cca tgg acc a	289
Leu Arg Val Leu Asn Pro Asp Leu Val Lys Gly Pro Trp Thr	
	75 80 85

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 <211> 368
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 66..368

<400> 2235	
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tcacc atg gcg gcc tca ttg ktg ggg aag aag atc gtg ttt gtn acg ggg	110
	Met Ala Ala Ser Leu Xaa Gly Lys Lys Ile Val Phe Val Thr Gly
	1 5 10 15
aac gcc aag aag ctg gag gag gtc gtt cag att cta gga gat aag ttt	158

Asn	Ala	Lys	Lys	Leu	Glu	Glu	Val	Val	Gln	Ile	Leu	Gly	Asp	Lys	Phe	
				20					25					30		
cca	tgc	act	ttg	gtg	gca	cag	aaa	att	gac	ctg	ccg	gag	tac	cag	ggg	206
Pro	Cys	Thr	Leu	Val	Ala	Gln	Lys	Ile	Asp	Leu	Pro	Glu	Tyr	Gln	Gly	
			35				40					45				
gag	ccg	gat	gag	att	tcc	ata	cag	aaa	tgt	cag	gag	gca	gtt	cgc	cag	254
Glu	Pro	Asp	Glu	Ile	Ser	Ile	Gln	Lys	Cys	Gln	Glu	Ala	Val	Arg	Gln	
			50				55					60				
gta	cag	ggg	ccc	gtg	ctg	gtt	gag	gac	act	tgt	ctg	tgc	ttc	aat	gcc	302
Val	Gln	Gly	Pro	Val	Leu	Val	Glu	Asp	Thr	Cys	Leu	Cys	Phe	Asn	Ala	
	65					70				75						
ctt	gga	ggg	ctc	ccc	ggc	ccc	tac	ata	aag	tgg	ttt	ctg	gag	aag	tta	350
Leu	Gly	Gly	Leu	Pro	Gly	Pro	Tyr	Ile	Lys	Trp	Phe	Leu	Glu	Lys	Leu	
80					85				90					95		
aag	cct	gaa	ggt	ctc	cac											368
Lys	Pro	Glu	Gly	Leu	His											
				100												

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 <211> 387
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 91..387

<400>	2236																
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gagttaggag	ctcgagaacc	gtttggcaat	atg tac gac	gcg gat gag	gat atg											114	
			Met Tyr Asp	Ala Asp	Glu Asp Met												
			1		5												
caa tat gat	gag gat gat	gat gaa atc	acc ccg	gat ttg	tgg caa gaa											162	
Gln Tyr Asp	Glu Asp Asp	Asp Asp	Glu Ile Thr	Pro Asp	Leu Trp Gln	Glu											
	10		15		20												
gca tgc tgg	att gta atc	agt tcc tat	ttt gac	gag aaa	ggc ttg gtt											210	
Ala Cys Trp	Ile Val Ile	Ser Ser Tyr	Phe Asp	Glu Lys	Gly Leu Val												
	25		30		35										40		
aga caa cag	ctg gat tct	ttt gat gag	ttt att	caa atg	tct gtt caa											258	
Arg Gln Gln	Leu Asp Ser	Phe Asp	Glu Phe	Ile Gln	Met Ser Val	Gln											
	45		50		55												
aga att gtg	gaa gac gct	cct cct ata	gac cta	cag gct	gaa gct cag											306	
Arg Ile Val	Glu Asp Ala	Pro Pro	Ile Asp	Leu Gln	Ala Glu Ala	Gln											
	60		65		70												
cat gct agt	gga gaa gtt	gaa gaa ccg	cca cga	tat ttg	ctg aag ttt											354	
His Ala Ser	Gly Glu Val	Glu Glu	Pro Pro	Arg Tyr	Leu Leu Lys	Phe											
	75		80		85												
gaa caa att	tat ctt tcc	aag cct acc	cat tgg													387	
Glu Gln Ile	Tyr Leu Ser	Lys Pro	Thr His	Trp													
	90		95														

<210> 2237
 <211> 410

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 238..408

<400> 2237
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 gacacagtgg ttggtgacgg gacagagcgg tcggtgacag cctcaagggc ttcagcaccg 120
 cgcccatggc agagccagac ccctctcacc ctctggagac ccaggcaggg aaggtgcarg 180
 aggctcagga ctcarattca rhctctgagg ggaggrgccg ctggtggaga agcakrc 237
 atg gac ttc ctg cgg aac tta ttc tcc cag acg ctc agc ctg ggc agc 285
 Met Asp Phe Leu Arg Asn Leu Phe Ser Gln Thr Leu Ser Leu Gly Ser
 1 5 10 15
 cag aag gag cgw mtg ctg gac gag ctg acc ttg gaa ggg gtg gcc cgg 333
 Gln Lys Glu Arg Xaa Leu Asp Glu Leu Thr Leu Glu Gly Val Ala Arg
 20 25 30
 tac atg cag arc gaa cgc tgt cgc aga gtc atb tgt ttg gtg ggm gct 381
 Tyr Met Gln Xaa Glu Arg Cys Arg Arg Val Xaa Cys Leu Val Gly Ala
 35 40 45
 gga atc tcc aca tcc gca ggc aat ccc cg 410
 Gly Ile Ser Thr Ser Ala Gly Asn Pro
 50 55

<210> 2238
<211> 360
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 46..360

<400> 2238
 gaacctcaga gcatcagttg gaattacgat ctgaggctgt cagag atg act ctg gtt 57
 Met Thr Leu Val
 1
 ctg tcc atg aat aga ttc tgc gag ccc att gtc tcg gaa gga gct gct 105
 Leu Ser Met Asn Arg Phe Cys Glu Pro Ile Val Ser Glu Gly Ala Ala
 5 10 15 20
 gaa att gct ggg tac caa aca cta tgg gag gct gwm agc tac gna ggc 153
 Glu Ile Ala Gly Tyr Gln Thr Leu Trp Glu Ala Xaa Ser Tyr Xaa Gly
 25 30 35
 ccr agc ccc cma ggg cca gma caa gct cct ttg cag gga gac cgg gga 201
 Pro Ser Pro Xaa Gly Pro Xaa Gln Ala Pro Leu Gln Gly Asp Arg Gly
 40 45 50
 gct ggt ccc cca ctg gca gga tca cat tac agg gga att tca aat cct 249
 Ala Gly Pro Pro Leu Ala Gly Ser His Tyr Arg Gly Ile Ser Asn Pro
 55 60 65
 ata aca aca tcc aag atc aca tac ttt aag agg aag tat gtg gaa gaa 297
 Ile Thr Thr Ser Lys Ile Thr Tyr Phe Lys Arg Lys Tyr Val Glu Glu

70	75	80	
gag gat ttt cac cca cca ctc agc agc tgt agc cat aaa acc atc tca			345
Glu Asp Phe His Pro Pro Leu Ser Ser Cys Ser His Lys Thr Ile Ser			
85	90	95	100
att ttt gag gag gag			360
Ile Phe Glu Asp Glu			
105			

<210> 2239
 <211> 393
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 122..391

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tcacgcggcg gtggctgccg ggaccctagc aggtttcagc tggagcggcg gcggcggcaa	120
c atg gsa rrr rmc gcg gcc gga gtg ggc cgc ttc aag acc aac tat gct	169
Met Xaa Xaa Xaa Ala Ala Gly Val Gly Arg Phe Lys Thr Asn Tyr Ala	
1 5 10 15	
gtg gag cgc aaa att gag cct ttc tac aag ggc gga aaa gca cag ctg	217
Val Glu Arg Lys Ile Glu Pro Phe Tyr Lys Gly Gly Lys Ala Gln Leu	
20 25 30	
gac cag act ggc cag cac ctc ttc tgc gtc tgt ggc acc aga gtc aac	265
Asp Gln Thr Gly Gln His Leu Phe Cys Val Cys Gly Thr Arg Val Asn	
35 40 45	
att ctg gaa gtg gcc tcg ggg gcc gtg ctg cgg agt ctg gag cag gag	313
Ile Leu Glu Val Ala Ser Gly Ala Val Leu Arg Ser Leu Glu Gln Glu	
50 55 60	
gac cag gag gac atc act gcc ttt gac ctc agc cct gaw nac gag gtg	361
Asp Gln Glu Asp Ile Thr Ala Phe Asp Leu Ser Pro Xaa Xaa Glu Val	
65 70 75 80	
ctg gtg aca gcc agt cgg gca ttg ctg ctg gc	393
Leu Val Thr Ala Ser Arg Ala Leu Leu Leu	
85 90	

<210> 2240
 <211> 478
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 29..478

<400> 2240	
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Met Glu Leu Arg Ala Lys Glu Glu	
1 5	

gag cgc cta aat aaa ctc cga ctg gaa agc gaa ggc tct cct gaa act	100
Glu Arg Leu Asn Lys Leu Arg Leu Glu Ser Glu Gly Ser Pro Glu Thr	
10 15 20	
ctt aca aac tta agg aaa gga tac ctg ttt atg tat aat cyt gtg caa	148
Leu Thr Asn Leu Arg Lys Gly Tyr Leu Phe Met Tyr Asn Xaa Val Gln	
25 30 35 40	
ttc ttg gga ttc tcc tgg atc ttt gtc aac ctg act gtg cga ttc tgt	196
Phe Leu Gly Phe Ser Trp Ile Phe Val Asn Leu Thr Val Arg Phe Cys	
45 50 55	
atc ttg gga aaa gag tcc ttt tat gac aca ttc cat act gtg gct gac	244
Ile Leu Gly Lys Glu Ser Phe Tyr Asp Thr Phe His Thr Val Ala Asp	
60 65 70	
atg atg tat ttc tgc cag atg ctg gca gtt gtg gaa act atc aat gca	292
Met Met Tyr Phe Cys Gln Met Leu Ala Val Val Glu Thr Ile Asn Ala	
75 80 85	
gca att gga gtc act acg tca ccg gtg ctg cct tct ctg atc cag ctt	340
Ala Ile Gly Val Thr Thr Ser Pro Val Leu Pro Ser Leu Ile Gln Leu	
90 95 100	
ctt gga aga aat ttt att ttg ttt atc atc ttt ggc acc atg gaa gaa	388
Leu Gly Arg Asn Phe Ile Leu Phe Ile Ile Phe Gly Thr Met Glu Glu	
105 110 115 120	
atg cag aac aaa gct gtg gtt ttc ttt gtg ttt tat ttg tgg agt gca	436
Met Gln Asn Lys Ala Val Val Phe Phe Val Phe Tyr Leu Trp Ser Ala	
125 130 135	
att gaa att ttc agg tac tct ttc tac atg ctg acg tgc att	478
Ile Glu Ile Phe Arg Tyr Ser Phe Tyr Met Leu Thr Cys Ile	
140 145 150	

<210> 2241
 <211> 453
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 179..451

<400> 2241	
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ctatggaac aacctgtcaa tccagctcaa ggcacacata gccagacac ccatgagacc	120
ctctccgtgg ggaccctaga gcacctatca tgaacgagga gaccaaggct ggctcctc	178
atg gac ccc gtt ggc ctc cag ctc ggc aac aag aac ctg tgg agc tgt	226
Met Asp Pro Val Gly Leu Gln Leu Gly Asn Lys Asn Leu Trp Ser Cys	
1 5 10 15	
ctt gtg agg ctg ctc acc aaa gac cca gaa tgg ctg aac gcc aag atg	274
Leu Val Arg Leu Leu Thr Lys Asp Pro Glu Trp Leu Asn Ala Lys Met	
20 25 30	
aag ttc ttc ctc ccc aac acg gac ctg gat tcc agg aac gag acc ttg	322
Lys Phe Phe Leu Pro Asn Thr Asp Leu Asp Ser Arg Asn Glu Thr Leu	
35 40 45	
gac cct gaa cag aga gtc atc ctg caa ctc aac aag ctg cat gtc cag	370
Asp Pro Glu Gln Arg Val Ile Leu Gln Leu Asn Lys Leu His Val Gln	
50 55 60	

ggt tcg gac acc tgg	cag tct ttc att cat tgt gtg tgc atg cag ctg	418
Gly Ser Asp Thr Trp	Gln Ser Phe Ile His Cys Val Cys Met Gln Leu	
65	70 75 80	
gag gtg cct ctg gac	ctg gag gtg ctg ctg ctg ag	453
Glu Val Pro Leu Asp	Leu Glu Val Leu Leu Leu	
85	90	

<210> 2242
 <211> 258
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 20..256

<400> 2242	
ccctgcgtcg gggggcaag atg gca gcc cag gct ttg gcg ctg ctg aga gag	52
Met Ala Ala Gln Ala Leu Ala Leu Leu Arg Glu	
1 5 10	
gta gcg agg ctg gaa gcg ccg ctg gag gag cta cgc gcg ctt cac tcc	100
Val Ala Arg Leu Glu Ala Pro Leu Glu Leu Arg Ala Leu His Ser	
15 20 25	
gtg ctg cag gca gtg ccg ctc aac gag ytt cgc cag caa gcg gcg gag	148
Val Leu Gln Ala Val Pro Leu Asn Glu Xaa Arg Gln Gln Ala Ala Glu	
30 35 40	
tgc gcc tgc gcc cgc tct tct ccc tgc tta acg aga acc ata ggg aaa	196
Cys Ala Ser Ala Arg Ser Ser Pro Cys Leu Thr Arg Thr Ile Gly Lys	
45 50 55	
aga cta ctt tgt gtg tat cca ttc tgg aga gat tgc tcc aag cta tgg	244
Arg Leu Leu Cys Val Tyr Pro Phe Trp Arg Asp Cys Ser Lys Leu Trp	
60 65 70 75	
aac cgg ttc acg tg	258
Asn Arg Phe Thr	

<210> 2243
 <211> 431
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 41..430

<400> 2243	
agtgcgcgcc tagcagtgtc ccagccgggt tcgtgtcgcc atg ggg cag atc gag	55
Met Gly Gln Ile Glu	
1 5	
tgg gcc atg tgg gcc aac gag cag gcg ctg gcg tcc ggc ctg atc ctc	103
Trp Ala Met Trp Ala Asn Glu Gln Ala Leu Ala Ser Gly Leu Ile Leu	
10 15 20	
atc acc ggg ggc atc gtg gcc aca gct ggg cgc ttc acc cag tgg tac	151

Ile Thr Gly Gly Ile Val Ala Thr Ala Gly Arg Phe Thr Gln Trp Tyr	
25 30 35	
ttt ggt gcc tac tcc att gtg gcg ggc gtg ttt gtg tgc ctg ctg gag	199
Phe Gly Ala Tyr Ser Ile Val Ala Gly Val Phe Val Cys Leu Leu Glu	
40 45 50	
tac ccc cgg ggg aag agg aag aag ggc tcc acc atg gag cgc tgg gga	247
Tyr Pro Arg Gly Lys Arg Lys Lys Gly Ser Thr Met Glu Arg Trp Gly	
55 60 65	
cag aag tac atg acc gcc gtg gtg aag ctg ttc ggg ccc ttt acc agg	295
Gln Lys Tyr Met Thr Ala Val Val Lys Leu Phe Gly Pro Phe Thr Arg	
70 75 80 85	
aat tac kga tgt tgc ggc cgt cct gca tct cct gct ctc ggt gcc cgc	343
Asn Tyr Xaa Cys Ser Gly Arg Pro Ala Ser Pro Ala Leu Gly Ala Arg	
90 95 100	
cgg ctt ctg rnw ggc cac cat cmt tgg gac cgc ctg cct ggc cat tgc	391
Arg Leu Leu Xaa Gly His His Xaa Trp Asp Arg Leu Pro Gly His Cys	
105 110 115	
gag cgg cat cta cct act ggc ggc tgt gcg tgg cga gca g	431
Glu Arg His Leu Pro Thr Gly Gly Cys Ala Trp Arg Ala	
120 125 130	
<210> 2244	
<211> 326	
<212> DNA	
<213> Homo sapiens	
<220>	
<221> CDS	
<222> 23..325	
<400> 2244	
gcctggcgcc gagcctccca ag atg gcg gtg tgc atc gcg gtg att gcc aag	52
Met Ala Val Cys Ile Ala Val Ile Ala Lys	
1 5 10	
gag aat tac ccc ctc tac att cgc agc acc cct acg gag aac gag ctg	100
Glu Asn Tyr Pro Leu Tyr Ile Arg Ser Thr Pro Thr Glu Asn Glu Leu	
15 20 25	
aag ttc cac tac atg gtg cac aca tct ctg gac gtg gtg gat gag aag	148
Lys Phe His Tyr Met Val His Thr Ser Leu Asp Val Val Asp Glu Lys	
30 35 40	
atc tcc gca atg ggg aag gcc ctg gtc gac cag agg gag ctg tac ctg	196
Ile Ser Ala Met Gly Lys Ala Leu Val Asp Gln Arg Glu Leu Tyr Leu	
45 50 55	
ggc ctg ctc tac ccc acg gag gac tac aag gtg tat ctt tca ggg cag	244
Gly Leu Leu Tyr Pro Thr Glu Asp Tyr Lys Val Tyr Leu Ser Gly Gln	
60 65 70	
ggt gtg tgt cag gga gga cct aca gtt gca aga tgt act tta gga tca	292
Gly Val Cys Gln Gly Gly Pro Thr Val Ala Arg Cys Thr Leu Gly Ser	
75 80 85 90	
gat aac ttg aaa cct ttt aga aga aaa aga ggt g	326
Asp Asn Leu Lys Pro Phe Arg Arg Lys Arg Gly	
95 100	

<210> 2245
 <211> 334
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 151..333

<400> 2245
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 ggaccctgag gctcgtgagc agggacccgc ggtgcgggtt atgctggggg ctcagatcac 120
 cgtagacaac tggacactca ggaccacgcc atg gag gag ctg cag gat gat tat 174
 Met Glu Glu Leu Gln Asp Asp Tyr
 1 5
 gaa gac atg atg gag gag aat ctg gag cag gag gcc ctg ggg ggt gtg 222
 Glu Asp Met Met Glu Glu Asn Leu Glu Gln Glu Ala Leu Gly Gly Val
 10 15 20
 aag cct gca gtc ctg aca cgc tct ggg gat cct tca cag cct ctg ctc 270
 Lys Pro Ala Val Leu Thr Arg Ser Gly Asp Pro Ser Gln Pro Leu Leu
 25 30 35 40
 ccc caa cac tcc tca ctg gag aca cag ctc ttc tgt gag cag gga gat 318
 Pro Gln His Ser Ser Leu Glu Thr Gln Leu Phe Cys Glu Gln Gly Asp
 45 50 55
 ggg ggc aca gaa ggg c 334
 Gly Gly Thr Glu Gly
 60

<210> 2246
 <211> 372
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 124..372

<400> 2246
 agtcccaccc gggagccggc agggagcgga stgcggascg cctggtctcc cgcgtccatc 60
 ggtccattcc tgcgtcgttc tgccttccg aacgcacact tcaggagcag ccgcgagggg 120
 ggc atg gca gcg agc aca gac atg gct ggg ctg gag gag agc ttc cgc 168
 Met Ala Ala Ser Thr Asp Met Ala Gly Leu Glu Glu Ser Phe Arg
 1 5 10 15
 aag ttt gcc atc cat ggt gac ccc aag gcc agt ggg caa gag atg aat 216
 Lys Phe Ala Ile His Gly Asp Pro Lys Ala Ser Gly Gln Glu Met Asn
 20 25 30
 ggc aag aac tgg gcc aag ctg tgc aag gac tgc aag gtg gct gac gga 264
 Gly Lys Asn Trp Ala Lys Leu Cys Lys Asp Cys Lys Val Ala Asp Gly
 35 40 45
 aag tcc gtg aca ggg acc gat gtg gac atc gtc ttc tcc aaa gtc aag 312
 Lys Ser Val Thr Gly Thr Asp Val Asp Ile Val Phe Ser Lys Val Lys
 50 55 60

ggg aag tct gct cgg gtc atc aac tat gag gag ttc aag aag gcc ctg 360
 Gly Lys Ser Ala Arg Val Ile Asn Tyr Glu Glu Phe Lys Lys Ala Leu
 65 70 75
 gaa gag ctg gcg 372
 Glu Glu Leu Ala
 80

<210> 2247
 <211> 153
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 1..153

<400> 2247
 atg ttg agg ggc sag cac ccg ccc gcc cgc tgc agg gac gcc ccg cca 48
 Met Leu Arg Gly Xaa His Pro Pro Ala Arg Cys Arg Asp Ala Pro Pro
 1 5 10 15
 acg cca ctg ccg ctt cag ctg gat ggc tgg atc cat gag aag atg ctg 96
 Thr Pro Leu Pro Leu Gln Leu Asp Gly Trp Ile His Glu Lys Met Leu
 20 25 30
 atg gcg cgg gat ggc acg cgg gag gas rac cac aag ctg cat aag aga 144
 Met Ala Arg Asp Gly Thr Arg Glu Xaa Xaa His Lys Leu His Lys Arg
 35 40 45
 tgg ctc cgg 153
 Trp Leu Arg
 50

<210> 2248
 <211> 436
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 256..435

<400> 2248
 agttctccgg sagcgccggt cggaggcgggt cggcggagggt gtctaccccg ccggtgatgg 60
 cggtgaacgc cactggcttc cgggccttcc gtccgctgcc tccgtccgat tctgcgtctg 120
 cttgctgarg aggcggatta ggggggcgcg gaggctcttc ccttgagtgc ataggtcccg 180
 gttggtagag ggtttgagtc cgcacgcgca cagctgargg ctgsgrgggr ctaagagcag 240
 aatatatctt tagaa atg agt tgc aca att gag aag gca ctt gcc gac gct 291
 Met Ser Cys Thr Ile Glu Lys Ala Leu Ala Asp Ala
 1 5 10
 aaa gct ctt gtt gaa aga tta aga gat cat gac gat gca gca gaa tct 339
 Lys Ala Leu Val Glu Arg Leu Arg Asp His Asp Asp Ala Ala Glu Ser
 15 20 25
 ctg att gag caa acc aca gct ctc nac aag cga gta gaa gcn atg aaa 387
 Leu Ile Glu Gln Thr Thr Ala Leu Xaa Lys Arg Val Glu Ala Met Lys

30	35	40	
cag tat cag gaa gaa att caa gaa ctt aat gaa gtc gcg aga cat cgg c			436
Gln Tyr Gln Glu Glu Ile Gln Glu Leu Asn Glu Val Ala Arg His Arg			
45	50	55	60

<210> 2249
 <211> 397
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 161..397

<400> 2249	
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tggagttcgc tgcgcgtgt tgggggccac ctgtcttttc gcttgtgtcc ctctttctag	120
tgtcgcgtc gagtcccgc gggccgctcc aagcctcgac atg tcg tac aac tac	175
Met Ser Tyr Asn Tyr	
1 5	
gtg gta acg gcc cag aag ccc acc gcc gtg aac ggc tgc gtg acc gga	223
Val Val Thr Ala Gln Lys Pro Thr Ala Val Asn Gly Cys Val Thr Gly	
10 15 20	
cac ttt act tcg gcc gaa gac tta aac ctg ttg att gcc aaa aac acg	271
His Phe Thr Ser Ala Glu Asp Leu Asn Leu Leu Ile Ala Lys Asn Thr	
25 30 35	
aga tta gag atc tat gtg gtc acc gcc gag ggg ctt cgg ccc gtc aaa	319
Arg Leu Glu Ile Tyr Val Val Thr Ala Glu Gly Leu Arg Pro Val Lys	
40 45 50	
gag gtg ggc atg tat ggg aag att gcg gtc atg gag ctt ttc agg ccc	367
Glu Val Gly Met Tyr Gly Lys Ile Ala Val Met Glu Leu Phe Arg Pro	
55 60 65	
aag ggg gag agc aag gac ctg ctg ttt atc	397
Lys Gly Glu Ser Lys Asp Leu Leu Phe Ile	
70 75	

<210> 2250
 <211> 358
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 33..356

<400> 2250	
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Met Ala Val Leu Leu Glu Thr	
1 5	
act tta ggc gac gtc gtc atc gac ttg tac acc gaa gaa cgg ccg cgt	101
Thr Leu Gly Asp Val Val Ile Asp Leu Tyr Thr Glu Glu Arg Pro Arg	
10 15 20	

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gcc tgc ttg aat ttc ttg aaa ctg tgc aaa ata aaa tat tac aat tat      149
Ala Cys Leu Asn Phe Leu Lys Leu Cys Lys Ile Lys Tyr Tyr Asn Tyr
  25                      30                      35
tgc ctt att cac aat gta cag agg gat ttt atc ata caa act ggc gat      197
Cys Leu Ile His Asn Val Gln Arg Asp Phe Ile Ile Gln Thr Gly Asp
  40                      45                      50                      55
cct aca ggg act ggc cgt gga gga gag tct atc ttt ggc caa ctg tat      245
Pro Thr Gly Thr Gly Arg Gly Gly Glu Ser Ile Phe Gly Gln Leu Tyr
                      60                      65                      70
ggw gat caa gca agc ttt ttt gag gca gaa aaa gtc cca aga att aag      293
Gly Asp Gln Ala Ser Phe Phe Glu Ala Glu Lys Val Pro Arg Ile Lys
                      75                      80                      85
cac aag aag aaa ggc aca gtg tcc atg gtg aat aat ggc agt gat caa      341
His Lys Lys Lys Gly Thr Val Ser Met Val Asn Asn Gly Ser Asp Gln
                      90                      95                      100
cat gga tct cag ttt ct      358
His Gly Ser Gln Phe
  105

```

<210> 2251
 <211> 284
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 72..284

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<400> 2251
accctagagg cccaggcccc ccaacggctg acccctgcac actccaccct ggccccccag      60
ccagtccagc a atg atg gaa aaa aac acc tcc gag ggc cct gcc tgc agt      110
          Met Met Glu Lys Asn Thr Ser Glu Gly Pro Ala Cys Ser
                1                5                10
cca gag gag acc gca tct gaa tct gcc aag gtg ccc aca gca gag cct      158
Pro Glu Glu Thr Ala Ser Glu Ser Ala Lys Val Pro Thr Ala Glu Pro
  15                20                25
ccc gga gaa gtg gca gta tca gag tcc acc aga gaa gag cag gtg ccc      206
Pro Gly Glu Val Ala Val Ser Glu Ser Thr Arg Glu Glu Gln Val Pro
  30                35                40                45
aag ccg cag gcc ctg ccc cac agg ccc cta cag cst cca cag cca cta      254
Lys Pro Gln Ala Leu Pro His Arg Pro Leu Gln Xaa Pro Gln Pro Leu
                50                55                60
agc ctg cac ccc caa gtg aag atg tcc cca      284
Ser Leu His Pro Gln Val Lys Met Ser Pro
  65                70

```

<210> 2252
 <211> 424
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> 101..424

<400> 2252

ggaaccggaa gtwycgtgtt gtrnggmwca gctgggttcat ttatgttggtt tttcctgtac 60
ctaagttccc gctgtaggtg gtacctttgc agacgggtgcg atg ggg gaa gca gag 115
Met Gly Glu Ala Glu
1 5
aag ttt cac tac atc tat agt tgt gac ctg gat atc aac gtc cag ctt 163
Lys Phe His Tyr Ile Tyr Ser Cys Asp Leu Asp Ile Asn Val Gln Leu
10 15 20
aag ata gga agc ttg gaa ggg aag aga gaa caa aag agt tat aaa gct 211
Lys Ile Gly Ser Leu Glu Gly Lys Arg Glu Gln Lys Ser Tyr Lys Ala
25 30 35
gtc ctg gaa gac cca atg ttg aag ttc tca gga cta tat caa gag aca 259
Val Leu Glu Asp Pro Met Leu Lys Phe Ser Gly Leu Tyr Gln Glu Thr
40 45 50
tgc tct gat ctt tat gtt act tgt caa gtt ttt gca gaa ggg aag cct 307
Cys Ser Asp Leu Tyr Val Thr Cys Gln Val Phe Ala Glu Gly Lys Pro
55 60 65
ttg gcc twr cca gtg aga aca tcc tac aaa gca ttt agt aca aga tgg 355
Leu Ala Xaa Pro Val Arg Thr Ser Tyr Lys Ala Phe Ser Thr Arg Trp
70 75 80 85
aac tgg aat gaa tgg ctg aaa cta cca gta aaa tac cct gac ctg ccc 403
Asn Trp Asn Glu Trp Leu Lys Leu Pro Val Lys Tyr Pro Asp Leu Pro
90 95 100
agg aat gcc caa gtg gcc ctc 424
Arg Asn Ala Gln Val Ala Leu
105

<210> 2253

<211> 276

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 28..276

<400> 2253

gwcagcagcc acacctctgc agagaga atg gcc agc agg aag gcg ggg acc cgg 54
Met Ala Ser Arg Lys Ala Gly Thr Arg
1 5
ggc aag gtg gca gcc acc aag cag gcc caa cgt ggt tct tcc aac gtc 102
Gly Lys Val Ala Ala Thr Lys Gln Ala Gln Arg Gly Ser Ser Asn Val
10 15 20 25
ttt tcc atg ttt gaa caa gcc cag ata cag gag ttc aaa gaa gcc ttc 150
Phe Ser Met Phe Glu Gln Ala Gln Ile Gln Glu Phe Lys Glu Ala Phe
30 35 40
agc tgt atc gac cag aat cgt gat ggc atc atc tgc aag gca gac ctg 198
Ser Cys Ile Asp Gln Asn Arg Asp Gly Ile Ile Cys Lys Ala Asp Leu
45 50 55
agg gag acc tac tcc cag ctg ggg aag gtg agt gtc cca gag gag gag 246

Arg Glu Thr Tyr Ser Gln Leu Gly Lys Val Ser Val Pro Glu Glu Glu
 60 65 70

ctg gac gcc atg ctg caa gag ggc aag ggc
 Leu Asp Ala Met Leu Gln Glu Gly Lys Gly
 75 80

276

<210> 2254

<211> 422

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 83..421

<400> 2254

ctgttctccg ctgaggagga gcggggcaga ggagggaggc agcgggtgag agttcagagt 60
 tcagcagcag cagcccgagc cc atg att ccc ata tgc cct gta gtt tct ttc 112
 Met Ile Pro Ile Cys Pro Val Val Ser Phe

1 5 10
 acc tat gtg ccc agc cgg ctg ggg gaa gat gcc aaa atg kcg acc ggc 160
 Thr Tyr Val Pro Ser Arg Leu Gly Glu Asp Ala Lys Met Xaa Thr Gly

15 20 25
 aac tac ttt gga ttc acc cac agc ggg gcg gcg gcg gcg gcg gct gcg 208
 Asn Tyr Phe Gly Phe Thr His Ser Gly Ala Ala Ala Ala Ala Ala Ala

30 35 40
 gcc caa tat agc cag cag cca gct tcg ggt gta gcc tat tct cat cca 256
 Ala Gln Tyr Ser Gln Gln Pro Ala Ser Gly Val Ala Tyr Ser His Pro

45 50 55
 act aca gtt gct agc tac act gtc cat cag gct cca gta gct gct cac 304
 Thr Thr Val Ala Ser Tyr Thr Val His Gln Ala Pro Val Ala Ala His

60 65 70
 aca gtt act gct gcc tat gca sca gca gcc gcc aca gtt gca gtt gcc 352
 Thr Val Thr Ala Ala Tyr Ala Xaa Ala Ala Ala Thr Val Ala Val Ala

75 80 85 90
 agg cct gct cca gta gct gtt gca gct gct gca aca gct gct gct tat 400
 Arg Pro Ala Pro Val Ala Val Ala Ala Ala Thr Ala Ala Ala Tyr

95 100 105
 gga ggn tac cca ctg cac aca c 422
 Gly Gly Tyr Pro Leu His Thr
 110

<210> 2255

<211> 270

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 101..268

<400> 2255

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agttcccggtt gccaagcaa ctagggcccg gagcccgggg tgctggaggg aggcggcagg      60
cccgggtyag gggcctcgag atcgggcttg ggcccagagc atg ttc cag atc cca      115
                               Met Phe Gln Ile Pro
                               1           5

gag ttt gag ccg agt gag cag gaa gac tcc agc tct gca gag agg ggc      163
Glu Phe Glu Pro Ser Glu Gln Glu Asp Ser Ser Ser Ala Glu Arg Gly
                               10          15          20

ctg ggc ccc agc ccc gca ggs acg ggc cct cag gct ccg gca agc atc      211
Leu Gly Pro Ser Pro Ala Gly Thr Gly Pro Gln Ala Pro Ala Ser Ile
                               25          30          35

atc gcc agg ccc cag gcc tcc tgt ggg acg cca gtc acc agc agg agc      259
Ile Ala Arg Pro Gln Ala Ser Cys Gly Thr Pro Val Thr Ser Arg Ser
                               40          45          50

agc caa cca gc      270
Ser Gln Pro
55

```

<210> 2256
 <211> 230
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 42..230

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<400> 2256
agtctcaggc tcagcgctca gccctacaca tcgcctcttg c atg caa ctc aca gag      56
                               Met Gln Leu Thr Glu
                               1           5

agg gag agg caa cct gtc ctc ccc tct ctc agc ctc ggc atc tcc agc      104
Arg Glu Arg Gln Pro Val Leu Pro Ser Leu Ser Leu Gly Ile Ser Ser
                               10          15          20

cac caa gga cct gct ttt cgc acc tcc aac aac ccc tcc ctt cta ccc      152
His Gln Gly Pro Ala Phe Arg Thr Ser Asn Asn Pro Ser Leu Leu Pro
                               25          30          35

tgc cac tcc ctc cca gag aga aag gaa aag gag aga gam aga ttc tgg      200
Cys His Ser Leu Pro Glu Arg Lys Glu Lys Glu Arg Xaa Arg Phe Trp
                               40          45          50

aat ttg aac cta ccc aaa gag gaa aca tac      230
Asn Leu Asn Leu Pro Lys Glu Glu Thr Tyr
55          60

```

<210> 2257
 <211> 535
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 65..535

<400> 2257

```

agagaagctg ggtctaagt tagtgttagc tgcagatacc tgctcagctg gctaagcctt      60
taac atg gaa aga agg ctc ata aag aag gaa atg aaa aag ctc ttg gga      109
      Met Glu Arg Arg Leu Ile Lys Lys Glu Met Lys Lys Leu Leu Gly
      1          5          10          15
gat tat att ggc atc aga ctt cgg gaa aat gaa ttt gac cca aaa gga      157
Asp Tyr Ile Gly Ile Arg Leu Arg Glu Asn Glu Phe Asp Pro Lys Gly
      20          25          30
aga cgg caa ctc acc ttt cta gat gat atg gca cac tat gac ttg gcc      205
Arg Arg Gln Leu Thr Phe Leu Asp Asp Met Ala His Tyr Asp Leu Ala
      35          40          45
atc agt gtt gct ttg caa tgg ctg gat ccc tca gaa gac tta act tgg      253
Ile Ser Val Ala Leu Gln Trp Leu Asp Pro Ser Glu Asp Leu Thr Trp
      50          55          60
ctg gag tgg gag gaa ctg aaa ata cca ctc cat ggc aga ccc ata tat      301
Leu Glu Trp Glu Glu Leu Lys Ile Pro Leu His Gly Arg Pro Ile Tyr
      65          70          75
ccn aat cgt aga gam cga gaa gct ata att tta tca tct tat gct gga      349
Pro Asn Arg Arg Xaa Arg Glu Ala Ile Ile Leu Ser Ser Tyr Ala Gly
      80          85          90          95
atc tta atg aac agt atc ccg att gag gaa gtc ttt aaa att tat ggg      397
Ile Leu Met Asn Ser Ile Pro Ile Glu Glu Val Phe Lys Ile Tyr Gly
      100          105          110
gct gat tct tct gcc gat tct ggt acc atc aag gtt ccc cgw gtt tca      445
Ala Asp Ser Ser Ala Asp Ser Gly Thr Ile Lys Val Pro Arg Val Ser
      115          120          125
tct ctc cgc ctc tcc ttg cac ccc ttt gcc atg tta aca gca ccc aaa      493
Ser Leu Arg Leu Ser Leu His Pro Phe Ala Met Leu Thr Ala Pro Lys
      130          135          140
gca gca gca tac gcc cgc aaa cag ggt gtc aag tca aga aag      535
Ala Ala Ala Tyr Ala Arg Lys Gln Gly Val Lys Ser Arg Lys
      145          150          155

```

<210> 2258

<211> 347

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 167..346

<400> 2258

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aagggtttta tagcgtccgg tagcgacacg gagccggctc ccccttttcc agccttcctc      60
cccctctccc attctccatc ccccacgacc tataccagag gtccttaggc ctccacgtct      120
ctccttttgc cgagtagccc aagggtttcca cccatctgcc agggggg atg gcg tcc      175
                        Met Ala Ser
                        1
act ccg atg ggg aat gag ggg gag aag aag agc agc tgg cca tct caa      223
Thr Pro Met Gly Asn Glu Gly Glu Lys Lys Ser Ser Trp Pro Ser Gln
      5          10          15
gct gca ccc tcc ttg aga gga ggt ccg gct tcg tta tct cgt tct gag      271
Ala Ala Pro Ser Leu Arg Gly Gly Pro Ala Ser Leu Ser Arg Ser Glu

```

20	25	30	35	
gaa tac ctg tcc	cag atc agt gca gaa	ctc atg gag gag gct ttg tgc		319
Glu Tyr Leu Ser	Gln Ile Ser Ala Glu	Leu Met Glu Glu Ala Leu Cys		
	40	45	50	
act gct tgc tgc	cac ttg aac cct gtg c			347
Thr Ala Cys Cys	His Leu Asn Pro Val			
	55	60		

<210> 2259
 <211> 457
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 130..456

<400> 2259	
ctgagtgtga cgtcagaatc accatggcca gctttcctta ccggcagggc tgcccaggag	60
ctgcaggaca agcaccagga gccctccgg gtagctacta ccctggaccc cccaatagtg	120
gagggcagt atg gta gtg ggc tac ccc ctg gtg gtg gtt atg ggg gtc ctg	171
Met Val Val Gly Tyr Pro Leu Val Val Val Met Gly Val Leu	
1 5 10	
ccc ctg gag ggc ctt atg gac cac cag ctg gtg gag ggc cct atg gac	219
Pro Leu Glu Gly Leu Met Asp His Gln Leu Val Glu Gly Pro Met Asp	
15 20 25 30	
acc cca atc ctg gga tgt tcc cct ctg gaa ctc cag gag gac cat atg	267
Thr Pro Ile Leu Gly Cys Ser Pro Leu Glu Leu Gln Glu Asp His Met	
35 40 45	
gcg gtg cag ctc ccg ggg gcc cct atg gtc agc cac ctc caa gtt cct	315
Ala Val Gln Leu Pro Gly Ala Pro Met Val Ser His Leu Gln Val Pro	
50 55 60	
acg gtg ccc agc agc ctg ggc ttt atg gac agg gtg gcg ccc ctc cca	363
Thr Val Pro Ser Ser Leu Gly Phe Met Asp Arg Val Ala Pro Leu Pro	
65 70 75	
atg tgg atc ctg agg cct act cct ggt tcc agt cgg tgg act cag rtc	411
Met Trp Ile Leu Arg Pro Thr Pro Gly Ser Ser Arg Trp Thr Gln Xaa	
80 85 90	
aca gtn ann kat atc tcc atg aag gag cta aag cag gcc ctg gtc a	457
Thr Val Xaa Xaa Ile Ser Met Lys Glu Leu Lys Gln Ala Leu Val	
95 100 105	

<210> 2260
 <211> 316
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 41..316

<400> 2260

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gaaggagcag agcgaccgga agcgcgagg gagccgcggg atg gac cgc agc ctg      55
                                         Met Asp Arg Ser Leu
                                         1      5
cca gtt ttc tcc att car gat agt ccc ttt gga gat gcg ccc ctg ggt      103
Pro Val Phe Ser Ile Gln Asp Ser Pro Phe Gly Asp Ala Pro Leu Gly
              10              15              20
cga agc cac tac tgg cca tcc cag agc cag acc tgg tgt ccc aag acc      151
Arg Ser His Tyr Trp Pro Ser Gln Ser Gln Thr Trp Cys Pro Lys Thr
              25              30              35
ctg agc cca tcc agg tct cag aga tcc agg ctc cca caa gct ccc aag      199
Leu Ser Pro Ser Arg Ser Gln Arg Ser Arg Leu Pro Gln Ala Pro Lys
              40              45              50
gct cta gcc aca ggt ccc aac tcc cct gag ctg ttt gag gag tcc tgg      247
Ala Leu Ala Thr Gly Pro Asn Ser Pro Glu Leu Phe Glu Glu Ser Trp
              55              60              65
cca tcc agt tca ggg acc ccc tcc ctg ccc agc acc act gag gga cag      295
Pro Ser Ser Ser Gly Thr Pro Ser Leu Pro Ser Thr Thr Glu Gly Gln
              70              75              80              85
atg tgg gcc tcc cca gca ccc      316
Met Trp Ala Ser Pro Ala Pro
              90

<210> 2261
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 18..419

<400> 2261
aagaaataca cacctac atg gaa atg ttt caa cgt gcg caa gcg ttg cgg      50
                      Met Glu Met Phe Gln Arg Ala Gln Ala Leu Arg
                      1      5      10
cgg cgg gca gag gac tac tac aga tgc aaa atc acc cct tct gca aga      98
Arg Arg Ala Glu Asp Tyr Tyr Arg Cys Lys Ile Thr Pro Ser Ala Arg
              15              20              25
aag cct ctt tgc aac cgg gtc aga atg gcg gca gtg gag cat cgt cat      146
Lys Pro Leu Cys Asn Arg Val Arg Met Ala Ala Val Glu His Arg His
              30              35              40
tct tca gga ttg ccc tac tgg ccc tac ctc aca gct gaa act tta aaa      194
Ser Ser Gly Leu Pro Tyr Trp Pro Tyr Leu Thr Ala Glu Thr Leu Lys
              45              50              55
aac agg atg ggc cac cag cca cct cct cca act caa caa cat tct ata      242
Asn Arg Met Gly His Gln Pro Pro Pro Pro Thr Gln Gln His Ser Ile
              60              65              70              75
att gat aac tcc ctg agc ctc aag aca cct ycy gag ygt ctg ctc wmt      290
Ile Asp Asn Ser Leu Ser Leu Lys Thr Pro Xaa Glu Xaa Leu Leu Xaa
              80              85              90
ccc ctt cca ccc tca gcg gat gat aat ctc aag aca cct ccc gag tgt      338
Pro Leu Pro Pro Ser Ala Asp Asp Asn Leu Lys Thr Pro Pro Glu Cys
              95              100              105

```



```

ctr ctc act ccc ctt cca ccc tca gct cta ccc tca gcg gat gat aat      386
Leu Leu Thr Pro Leu Pro Pro Ser Ala Leu Pro Ser Ala Asp Asp Asn
      110                      115                      120

ctc aag aca cct gcg gag tgt ctg ctc tac ccc      419
Leu Lys Thr Pro Ala Glu Cys Leu Leu Tyr Pro
      125                      130

```

<210> 2262
 <211> 331
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 55..330

```

<400> 2262
agcctgggccc gctgcgcaga ggcgcggcgg ctgtacaact cggccgttgt cacc atg      57
                                   Met
                                   1

ccg gtc gtc cgg aag att ttc cgt cgc cgc cgg ggc gac tcg gag tca      105
Pro Val Val Arg Lys Ile Phe Arg Arg Arg Arg Gly Asp Ser Glu Ser
      5                      10                      15

gag gaa gat gag cag gac tca gag gag gtt cga tta aaa ctg gaa gag      153
Glu Glu Asp Glu Gln Asp Ser Glu Glu Val Arg Leu Lys Leu Glu Glu
      20                      25                      30

acc aga gag gta cag aac ttg agg aag agg ccc aac ggg gtg agt gct      201
Thr Arg Glu Val Gln Asn Leu Arg Lys Arg Pro Asn Gly Val Ser Ala
      35                      40                      45

gtg gcc ttg ctg gtg gga gag aag gta caa gag gag acc act cta gtg      249
Val Ala Leu Leu Val Gly Glu Lys Val Gln Glu Glu Thr Thr Leu Val
      50                      55                      60                      65

gat gat ccc ttt cag atg aag aca ggt ggt atg gtg gat atg aag aaa      297
Asp Asp Pro Phe Gln Met Lys Thr Gly Gly Met Val Asp Met Lys Lys
      70                      75                      80

ctg aag gaa agg ggc aaa gat wag atc agt gag g      331
Leu Lys Glu Arg Gly Lys Asp Xaa Ile Ser Glu
      85                      90

```

<210> 2263
 <211> 452
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 68..451

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<400> 2263
ggcgtggggc ggaagcacga tctccggcag cggcctggga actcttagct gagcaggcga      60
gagcatc atg gat acc gac tta tat gat gag ttt ggg aat tat att gga      109
      Met Asp Thr Asp Leu Tyr Asp Glu Phe Gly Asn Tyr Ile Gly

```

[illegible]

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<210> 2264
<211> 443
<212> DNA
<213> Homo sapiens
```

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<220>  
<221> CDS  
<222> 269..442
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<400> 2264																			
ccttgccaccg	cccacgtggc	cagcgccacc	tgctcattg	tgcccaggag	ttctccaaac													60	
ccgcgctgcg	kagtccttcc	tcgggaggcg	gcgaaggcgg	tccaccctgc	gcgtgatcct													120	
tcatgcccgg	cccctgcccc	tccctccggg	tggaacttcc	ccctcaccgc	cagacttaag													180	
ctgaggatcg	ttggatctct	ggcggggtgc	agaactgagc	ccaggccaca	gtaccctatt													240	
cacgctctgt	gcttgtgcca	aggggggca	atg gcg gct tcc tgt gtt cta ctg														292		
			Met Ala Ala Ser Cys Val Leu Leu																
			1			5													
cac act ggg cag aag atg cct ctg att ggt ctg ggt acc tgg aag agt													340						
His Thr Gly Gln Lys Met Pro Leu Ile Gly Leu Gly Thr Trp Lys Ser																			
10			15			20													
gag cct ggt cag gta aaa gca gct gtt aag tat gcc ctt agc gta ggc													388						
Glu Pro Gly Gln Val Lys Ala Ala Val Lys Tyr Ala Leu Ser Val Gly																			
25			30			35			40										
tac cgc cac att gat tgt gct gct atc tac ggc aat gag cct gag att													436						
Tyr Arg His Ile Asp Cys Ala Ala Ile Tyr Gly Asn Glu Pro Glu Ile																			
45			50			55													
ggg gag c													443						
Gly Glu																			

<210> 2265
 <211> 481
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 307..480

<400> 2265
 ctccaaaccc gcgctgcgga gtgagtgacc aagttccggc cagttcgacc tcgaggatcc 60
 agaggtkgra gacggtacta cctcccagmt ctgttttcca tccccttcag gtccttcctc 120
 gggakacggc gaaggcggtc caccctgcgc gtgatccttc atgcccggcc cctgcccctc 180
 cctccgggtg gaacttcccc ctcaccgcca gacttmagct gaggatcggt ggatctcttg 240
 cgggggtgcag aactgagccc aggccacagt accctattca cgctctgtgc ttgtgccaag 300
 ggggca atg gcg gct tcc tgt gtt cta ctg cac act ggg cag aag atg 348
 Met Ala Ala Ser Cys Val Leu Leu His Thr Gly Gln Lys Met
 1 5 10
 cct ctg att ggt ctg ggt acc tgg aag agt gag cct ggt cag gta aaa 396
 Pro Leu Ile Gly Leu Gly Thr Trp Lys Ser Glu Pro Gly Gln Val Lys
 15 20 25 30
 gca gct gtt aag tat gcc ctt agc gta ggc tac cgc cac att gat tgt 444
 Ala Ala Val Lys Tyr Ala Leu Ser Val Gly Tyr Arg His Ile Asp Cys
 35 40 45
 gct gct atc tac ggc aat gag cct gag att ggg gag c 481
 Ala Ala Ile Tyr Gly Asn Glu Pro Glu Ile Gly Glu
 50 55

<210> 2266
 <211> 421
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 169..420

<400> 2266
 gagtcacggc tcgcgactgg cctaagtcgc cgcagaactg ccacgtgggg atgagatttg 60
 ctgggctggg agcggcggt gctgcgggag gtcccgccca cgtgaagcca gcctaactga 120
 gctctggact ttggggacag ctgtcagtg cctaggccgc aggacacc atg aag caa 177
 Met Lys Gln
 1
 ctg cca gtc ttg gaa cct gga gac aag ccc agg aaa gca aca tgg tac 225
 Leu Pro Val Leu Glu Pro Gly Asp Lys Pro Arg Lys Ala Thr Trp Tyr
 5 10 15
 acc ttg act gtc cct gga gac agc ccc tgt gct cga gtt ggc cac agc 273
 Thr Leu Thr Val Pro Gly Asp Ser Pro Cys Ala Arg Val Gly His Ser
 20 25 30 35
 tgt tca tat tta ccc cca gtt ggt aat gcc aag aga ggs gmg gtc ttc 321
 Cys Ser Tyr Leu Pro Pro Val Gly Asn Ala Lys Arg Gly Xaa Val Phe

004220" 6664560

	40		45		50	
att gtt ggg gga gca aat cca aac aga agc ttc tca gac gtg cac ang						369
Ile Val Gly Gly Ala Asn Pro Asn Arg Ser Phe Ser Asp Val His Xaa						
	55		60		65	
gtt gga tct gga cac tct gac ctg gtc aca gcc aga gac act tgg aaa						417
Val Gly Ser Gly His Ser Asp Leu Val Thr Ala Arg Asp Thr Trp Lys						
	70		75		80	
tcc t						421
Ser						

<210> 2267
 <211> 255
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 85..255

<400> 2267	
agaggggaagg aggtcggcag tgtgaggagc tgctatggtg ctgagtttcc tggtagagcc	60
ggccgagctg aggcggctgc ggcc atg aag gcg ggt gcc acg tct atg tgg	111
Met Lys Ala Gly Ala Thr Ser Met Trp	
	1 5
gct tgc tgc tgt ggg ctg ctg aat gaa gtc atg gga act gga gct gtc	159
Ala Ser Cys Cys Gly Leu Leu Asn Glu Val Met Gly Thr Gly Ala Val	
10 15 20 25	
agg ggc cag cag tca gca ttt gca gga gcc acc ggt cca ttc aga ttt	207
Arg Gly Gln Gln Ser Ala Phe Ala Gly Ala Thr Gly Pro Phe Arg Phe	
	30 35 40
aca cca aac cct gag ttt tcc acc tac cca cca gca gct acg gaa ggg	255
Thr Pro Asn Pro Glu Phe Ser Thr Tyr Pro Pro Ala Ala Thr Glu Gly	
	45 50 55

<210> 2268
 <211> 246
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 58..246

<400> 2268	
ccgtggtgaa gcaaggcttt gagcctccct cctttgtggg ctrgttcctt ggctggg	57
atg atg att act ggt ctg tgg acc cct tgg aca ggg cca tgg ctg agc	105
Met Met Ile Thr Gly Leu Trp Thr Pro Trp Thr Gly Pro Trp Leu Ser	
1 5 10 15	
tgg ctg cct gag gag ggg cag ggc cca ccc atg tca ccg gtc agt gcc	153
Trp Leu Pro Glu Glu Gly Gln Gly Pro Pro Met Ser Pro Val Ser Ala	
	20 25 30
ttt tgg aac tgt cct tcy ctc aaa gag gcc tta gag cga gca gag cag	201

Phe Trp Asn Cys Pro Ser Leu Lys Glu Ala Leu Glu Arg Ala Glu Gln
 35 40 45
 ctc tgc tat gag tgt gtg tgt gtg tgt gtg ttg ttt ctt ttt ttt 246
 Leu Cys Tyr Glu Cys Val Cys Val Cys Val Leu Phe Leu Phe Phe
 50 55 60

<210> 2269
 <211> 326
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 150..326

<400> 2269
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 tgggcggcgt tggctgcttc taagtgtggt cttcttggtc acaggctctg tgtccgagtg 120
 tgggtgtgcct gcgcggttgg ggtgtgtag atg tgg acc ctt cga ggc cct tct 173
 Met Trp Thr Leu Arg Gly Pro Ser
 1 5
 gcg ttt tct tcg ttg cgt acg att gtg ctc cgt tgg tgt tct cag cag 221
 Ala Phe Ser Ser Leu Arg Thr Ile Val Leu Arg Trp Cys Ser Gln Gln
 10 15 20
 gga tct gat tct gtg tgt ggg ggt gtg tgg ccc ctg cga ctg tgt ttg 269
 Gly Ser Asp Ser Val Cys Gly Gly Val Trp Pro Leu Arg Leu Cys Leu
 25 30 35 40
 ggt ggt gtc gtc gtt atg tcg ggc gtg tgt gat ccc gac tgt gct gga 317
 Gly Gly Val Val Val Met Ser Gly Val Cys Asp Pro Asp Cys Ala Gly
 45 50 55
 ttg tgt gtc 326
 Leu Cys Val

<210> 2270
 <211> 300
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 133..300

<400> 2270
 actctcgtct ggccgcgcgcg ctttcaggag gtgcttttgg ttctctccgg tcttgtccac 60
 gctaggggggt gcacgtactc ccaactgtgg tcgcgtcttc acsscttctg ctgctctcgt 120
 ggccccctcg cg atg gcg ggc atc ctg ktt gag grt att ttc gat gtg aag 171
 Met Ala Gly Ile Leu Xaa Glu Xaa Ile Phe Asp Val Lys
 1 5 10
 gat att gac ccg gag ggc aag aag ttt gac cgr gtg tct cga ctg cat 219
 Asp Ile Asp Pro Glu Gly Lys Lys Phe Asp Arg Val Ser Arg Leu His
 15 20 25
 tgt gag agt gaa tct ttc aag atg gat cta atc tta grt gta aac att 267

Cys Glu Ser Glu Ser Phe Lys Met Asp Leu Ile Leu Xaa Val Asn Ile
 30 35 40 45
 caa att tac cct gta gac ttg ggt gac aag ttt
 Gln Ile Tyr Pro Val Asp Leu Gly Asp Lys Phe
 50 55

300

<210> 2271
 <211> 431
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 69..431

<400> 2271
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 ctgaagcc atg gtt cat cag gtg ctc tac cgg gcg ctg gtc tcc acc aag 110
 Met Val His Gln Val Leu Tyr Arg Ala Leu Val Ser Thr Lys
 1 5 10
 tgg ctg gcg gag tcc atc agg act ggc aag ctg ggg ccc ggc ctg cgg 158
 Trp Leu Ala Glu Ser Ile Arg Thr Gly Lys Leu Gly Pro Gly Leu Arg
 15 20 25 30
 gtg ctg gac gcg tcc tgg tac tca cca ggc acc cga gag gcc cgc aag 206
 Val Leu Asp Ala Ser Trp Tyr Ser Pro Gly Thr Arg Glu Ala Arg Lys
 35 40 45
 gag tac ctc gag cgc cac gta ccc ggc gcc tct ttc ttt gac ata gaa 254
 Glu Tyr Leu Glu Arg His Val Pro Gly Ala Ser Phe Phe Asp Ile Glu
 50 55 60
 gag tgc cgg gac acg gcg tcg ccc tac gag atg atg ctg ccc agc gag 302
 Glu Cys Arg Asp Thr Ala Ser Pro Tyr Glu Met Met Leu Pro Ser Glu
 65 70 75
 gct ggc ttc gcc gag tat gtg ggc cgc ctg ggc atc agc aac cac acg 350
 Ala Gly Phe Ala Glu Tyr Val Gly Arg Leu Gly Ile Ser Asn His Thr
 80 85 90
 cac gtg gtg gtg tat gat ggt gaa cac tgg gca gct tct atg ctc ccc 398
 His Val Val Val Tyr Asp Gly Glu His Trp Ala Ala Ser Met Leu Pro
 95 100 105 110
 ggg tct ggt gga tgt tcc gtg tgt ttg gcc acc 431
 Gly Ser Gly Gly Cys Ser Val Cys Leu Ala Thr
 115 120

<210> 2272
 <211> 364
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 40..363

<400> 2272

cacttccgct tccgctgggg aggtcctcca tgcgcagtc atg agt cgc ttc aag 54
Met Ser Arg Phe Lys
1 5

ttt atc gat att ggt atc aac ttg act gac cct atg ttc aga gga att 102
Phe Ile Asp Ile Gly Ile Asn Leu Thr Asp Pro Met Phe Arg Gly Ile
10 15 20

tat agg ggg gtt caa aag cat caa gat gac tta cag gat gta ata ggg 150
Tyr Arg Gly Val Gln Lys His Gln Asp Asp Leu Gln Asp Val Ile Gly
25 30 35

aga gct gtc gag att ggt gtt aaa aag ttt atg att aca ggt gga aat 198
Arg Ala Val Glu Ile Gly Val Lys Lys Phe Met Ile Thr Gly Gly Asn
40 45 50

cta caa gac agt aaa gat gca ctg cat ttg gca caa nca aat ggt atg 246
Leu Gln Asp Ser Lys Asp Ala Leu His Leu Ala Gln Xaa Asn Gly Met
55 60 65

ttt ttc agt aca gtt gga tgt cat cct aca aga tgt ggt gaa ttt gaa 294
Phe Phe Ser Thr Val Gly Cys His Pro Thr Arg Cys Gly Glu Phe Glu
70 75 80 85

aag aat aac cct gat ctt tac tta aag gag ttg cta aat ctt gct gaa 342
Lys Asn Asn Pro Asp Leu Tyr Leu Lys Glu Leu Leu Asn Leu Ala Glu
90 95 100

aac aat aaa ggg aaa gtt gtg g 364
Asn Asn Lys Gly Lys Val Val
105

<210> 2273
<211> 212
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 17..211

<400> 2273
acatttcagg gacacc atg aag ggt ggc ttc act ggg ggt gat gag tac cag 52
Met Lys Gly Gly Phe Thr Gly Gly Asp Glu Tyr Gln
1 5 10

aag cac ttc ctg ccc agg gac tac ttg gct act tac tac agc ttc gat 100
Lys His Phe Leu Pro Arg Asp Tyr Leu Ala Thr Tyr Ser Phe Asp
15 20 25

ggc agc ccc tca ccc gag gcc gag atg ctg aag ttt aac ttg gaa tgt 148
Gly Ser Pro Ser Pro Glu Ala Glu Met Leu Lys Phe Asn Leu Glu Cys
30 35 40

ctc cac aag acc ttc ggc cct gga ggc ctc caa ggg gac acg ctg att 196
Leu His Lys Thr Phe Gly Pro Gly Gly Leu Gln Gly Asp Thr Leu Ile
45 50 55 60

gac att ggc tca ggt c 212
Asp Ile Gly Ser Gly
65

<210> 2274
<211> 245

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 1..243

<400> 2274
atg tta ctt cct gta tgg agg cat ggc car ttt cca gcc ccg cgc tct 48
Met Leu Leu Pro Val Trp Arg His Gly Gln Phe Pro Ala Pro Arg Ser
1 5 10 15
tcg ttc ctt ccc agc ctg cgc cgg agc cac aac ttt cag gag cat gga 96
Ser Phe Leu Pro Ser Leu Arg Arg Ser His Asn Phe Gln Glu His Gly
20 25 30
ctg aag gcg ccc tcg ccc cag cgc ccc tct gag atc ctt tgt gtt ttc 144
Leu Lys Ala Pro Ser Pro Gln Arg Pro Ser Glu Ile Leu Cys Val Phe
35 40 45
ctc cgt ttc ctc cgg ccg ttt cta ttt tgg ggg gct ctc cgc tcc ccc 192
Leu Arg Phe Leu Arg Pro Phe Leu Phe Trp Gly Ala Leu Arg Ser Pro
50 55 60
tgc ctc tcc cct ccc ctt ccc ctc tcg caa aca tgc ctc ctt cct tcc 240
Cys Leu Ser Pro Pro Leu Pro Leu Ser Gln Thr Cys Leu Leu Pro Ser
65 70 75 80
cgg gg 245
Arg

<210> 2275
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 96..296

<400> 2275
aaactgagca acagccacga cagtgnacgc gagcgtctcc tctgtgcgca tgcgcccgct 60
cagcggcctg cttctattta tgtgggggat ccaac atg gcg gcc gcg gcg acc 113
Met Ala Ala Ala Ala Thr
1 5
ctg gcg atg gcg gtg aag ccc atc aga acg tat agc ggg gaa ggg gac 161
Leu Ala Met Ala Val Lys Pro Ile Arg Thr Tyr Ser Gly Glu Gly Asp
10 15 20
acg gtc cgc act cac cgt ggc gcc ggc gga gac gtt gag ggt ggt gga 209
Thr Val Arg Thr His Arg Gly Ala Gly Gly Asp Val Glu Gly Gly Gly
25 30 35
ggg aag aaa agc gac aga gag caa gag gaa ggg ccg gca ggc acg cag 257
Gly Lys Lys Ser Asp Arg Glu Gln Glu Glu Gly Arg Ala Gly Thr Gln
40 45 50
cgs gcc gta gaa gcg agc gcc ggc tcg agc aaa agc gga 296
Arg Ala Val Glu Ala Ser Ala Gly Ser Ser Lys Ser Gly
55 60 65

<210> 2276
 <211> 250
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 58..249

<400> 2276
 atttttttat ttggaggcca gcggggggtg aggggtggct gatgcaatga ccagcta 57
 atg gct cga ttc tca aga ggg ttt cat tgg tct caa cct ggc ccc cca 105
 Met Ala Arg Phe Ser Arg Gly Phe His Trp Ser Gln Pro Gly Pro Pro
 1 5 10 15
 ggc aac cca ccc ctg att gga cag tct cat caa gaa ggt tgg tca aga 153
 Gly Asn Pro Pro Leu Ile Gly Gln Ser His Gln Glu Gly Trp Ser Arg
 20 25 30
 gct caa gtg ttt ctg aga atc tgg gtg att tat aag aaa ccc tta gct 201
 Ala Gln Val Phe Leu Arg Ile Trp Val Ile Tyr Lys Lys Pro Leu Ala
 35 40 45
 gaa tgc agg gtg ggg aga acg aaa gac aaa agc atc ttt ttt cag aag g 250
 Glu Cys Arg Val Gly Arg Thr Lys Asp Lys Ser Ile Phe Phe Gln Lys
 50 55 60

<210> 2277
 <211> 345
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 70..345

<400> 2277
 agagcaggcc cgggagccgg gaggtgcggg cggcggcgct ggacccgacg cggcgagaga 60
 ggccccgag atg ccg agc aag aagaag aag tac aac gcg cgg ttc ccg ccg 111
 Met Pro Ser Lys Lys Lys Lys Tyr Asn Ala Arg Phe Pro Pro
 1 5 10
 gcg cgg atc aag aag atc atg cag acg gac gar gwg att kgg aag gtg 159
 Ala Arg Ile Lys Lys Ile Met Gln Thr Asp Glu Xaa Ile Xaa Lys Val
 15 20 25 30
 gcg gcg gcg gtg cct gtc atc atc tcc cgg gcg ctc gag ctc ttc cta 207
 Ala Ala Ala Val Pro Val Ile Ile Ser Arg Ala Leu Glu Leu Phe Leu
 35 40 45
 gag tcg ctg ttg aag aag gcc tgc cag gtg acc cag tcg cgg aac snw 255
 Glu Ser Leu Leu Lys Lys Ala Cys Gln Val Thr Gln Ser Arg Asn Xaa
 50 55 60
 agg acc atg acc aca tcc cac ctg aag cag tgc atc gag ctg gag cag 303
 Arg Thr Met Thr Thr Ser His Leu Lys Gln Cys Ile Glu Leu Glu Gln
 65 70 75
 cag ttt gac ttc ttg aag gac ctg gtg gca tct gtt ccc gac 345

Gln Phe Asp Phe Leu Lys Asp Leu Val Ala Ser Val Pro Asp
 80 85 90

<210> 2278
 <211> 214
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 11..214

<400> 2278
 agtagacgcc atg atg gat gtg tct ggt gtg ggt ttc cca agc aag gtt 49
 Met Met Asp Val Ser Gly Val Gly Phe Pro Ser Lys Val
 1 5 10
 cct tgg aag aag atg tct gca gag gag ctg gag aat cag tac tgt ccc 97
 Pro Trp Lys Lys Met Ser Ala Glu Glu Leu Glu Asn Gln Tyr Cys Pro
 15 20 25
 agc cga tgg gtt gtc cga ctg gga gca gag gaa gcc ttg agg acc tac 145
 Ser Arg Trp Val Val Arg Leu Gly Ala Glu Glu Ala Leu Arg Thr Tyr
 30 35 40 45
 tca cag ata gga att gaa ggt act agt gtg acc tct ctg tgg ccg cat 193
 Ser Gln Ile Gly Ile Glu Gly Thr Ser Val Thr Ser Leu Trp Pro His
 50 55 60
 tgg gtg tcc tta agc atg tgg 214
 Trp Val Ser Leu Ser Met Trp
 65

<210> 2279
 <211> 487
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 202..486

<400> 2279
 agagaggggc gcggggggcg ggggtggtgg ggcttctgga ctgagccgct gagggcgcg 60
 gctgaccctg taagtggctg cggcgggaag atggcggaast gcgcgtgctc gtagctgtca 120
 agaggggtcat cgactacgcc gtgaanrate sgagtgaagc ctgacaggac cgggtgtggtc 180
 acggatggtg tgaagcactc c atg aac ccc ttc tgt gag atc gcg gtg gag 231
 Met Asn Pro Phe Cys Glu Ile Ala Val Glu
 1 5 10
 gag gct gtg cgg ctc aag gag aag aag ctg gtg aag gag gtc atc gcc 279
 Glu Ala Val Arg Leu Lys Glu Lys Lys Leu Val Lys Glu Val Ile Ala
 15 20 25
 gtc agc tgt ggg cct gca cag tgc cag gag acg att cgt acc gcc ctg 327
 Val Ser Cys Gly Pro Ala Gln Cys Gln Glu Thr Ile Arg Thr Ala Leu
 30 35 40
 gcc atg ggt gca gac cga ggt atc cac gtg gag gtg ccc cca gca gaa 375

004220"666E7560

Ala Met Gly Ala Asp Arg Gly Ile His Val Glu Val Pro Pro Ala Glu	
45 50 55	
gca gaa cgc ttg ggt ccc ctg cag gtg gct cgg gtc ctg gcc aag ctg	423
Ala Glu Arg Leu Gly Pro Leu Gln Val Ala Arg Val Leu Ala Lys Leu	
60 65 70	
gca gag aag gag aag gtg gac ctg gtg ctg ctg ggc aaa cag gcc atc	471
Ala Glu Lys Glu Lys Val Asp Leu Val Leu Leu Gly Lys Gln Ala Ile	
75 80 85 90	
gat gat gac tgt aac c	487
Asp Asp Asp Cys Asn	
95	

<210> 2280
 <211> 404
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 150..404

<400> 2280	
agcgaccacc ccctgggttc cctcccgggt ccgcagtgga aacactgccc tctcccttct	60
tgaccocctag cccttccttc cctccctcct tccctcctgt cgccgtctct tctggcgccg	120
ctgctcccgg aggagmtccc ggcacgscg atg ggt tct cgg gcc tcc acg tta	173
Met Gly Ser Arg Ala Ser Thr Leu	
1 5	
ctg cgg gac gaa gag ctc gag gag atc aag aag gag acc ggc ttt tcc	221
Leu Arg Asp Glu Glu Leu Glu Glu Ile Lys Lys Glu Thr Gly Phe Ser	
10 15 20	
cac agt caa atc act cgc ctc tac agc cgg ttc acc agc ctg gac aaa	269
His Ser Gln Ile Thr Arg Leu Tyr Ser Arg Phe Thr Ser Leu Asp Lys	
25 30 35 40	
gga gag aat ggg act ctc agc cgg gaa gat ttc cag agg att cca gaa	317
Gly Glu Asn Gly Thr Leu Ser Arg Glu Asp Phe Gln Arg Ile Pro Glu	
45 50 55	
ctt gcc atc aac cca ctg ggg gac cgg atc atc aat gcc ttc ttt cca	365
Leu Ala Ile Asn Pro Leu Gly Asp Arg Ile Ile Asn Ala Phe Phe Pro	
60 65 70	
gas gga gag gac cag gta aac ttc cgt gga ttc atg cga	404
Xaa Gly Glu Asp Gln Val Asn Phe Arg Gly Phe Met Arg	
75 80 85	

<210> 2281
 <211> 263
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 99..263

004220" 656ET560

<400> 2281

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ttttttctcgc ttgtttttctc tcccggcctc atgcgtttcc cccccctcgc ggcgcctcgc 60
cgctctccct cgctctcgcct ctgtcttttt tgggcgcc atg ctg agg gga agg gaa 116
                               Met Leu Arg Gly Arg Glu
                               1           5
gat gga gag ttg gaa gaa ggt gaa ttg gaa gat gat ggg gca gag gag 164
Asp Gly Glu Leu Glu Glu Gly Glu Leu Glu Asp Asp Gly Ala Glu Glu
          10           15           20
acc cag gat acc tcc gga ggg cct gag aga agc cgg aaa gaa aag ggg 212
Thr Gln Asp Thr Ser Gly Gly Pro Glu Arg Ser Arg Lys Glu Lys Gly
          25           30           35
gag aag cat cac agt gat tcg gat gag gag aag tcc cac agg aga cga 260
Glu Lys His His Ser Asp Ser Asp Glu Glu Lys Ser His Arg Arg Arg
          40           45           50
agc 263
Ser
55

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<210> 2282

<211> 333

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 51..332

<400> 2282

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atggagagggc ggcggccgcg gctgctgagg cggaggctga ggcagtggcg atg gcg 56
                               Met Ala
                               1
ccc ttt cct gaa gaa gtg gac gtc ttc acc gcc cca cac tgg cgg atg 104
Pro Phe Pro Glu Glu Val Asp Val Phe Thr Ala Pro His Trp Arg Met
          5           10           15
aag cag ctg gtg ggg ctc tac tgc gac aag ctt tct aaa acc aat ttt 152
Lys Gln Leu Val Gly Leu Tyr Cys Asp Lys Leu Ser Lys Thr Asn Phe
          20           25           30
tcc aac aac aac gat ttc cgt gct ctt ctg cag tct ttg tat gct act 200
Ser Asn Asn Asn Asp Phe Arg Ala Leu Leu Gln Ser Leu Tyr Ala Thr
          35           40           45           50
ttc aag gag ttc aaa atg cat gag cag att gta aat gaa tac att att 248
Phe Lys Glu Phe Lys Met His Glu Gln Ile Val Asn Glu Tyr Ile Ile
          55           60           65
ggt ttg ctt caa caa cgc agc cag acc att tat aat gta cat tct gac 296
Gly Leu Leu Gln Gln Arg Ser Gln Thr Ile Tyr Asn Val His Ser Asp
          70           75           80
aaa aac tct ccg aga tgc tta gcc tct ttg aaa agg g 333
Lys Asn Ser Pro Arg Cys Leu Ala Ser Leu Lys Arg
          85           90

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<210> 2283

<211> 267

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 103..267

<400> 2283

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ccccaccccc caagctccct ctccccgcct tcagactgaa ga atg act cgg acc 114
Met Thr Arg Thr
1
tct tcg ggg cyg ggg ctg rag gag gcc gga ccc aag gag agc agt gag 162
Ser Ser Gly Xaa Gly Leu Xaa Glu Ala Gly Pro Lys Glu Ser Ser Glu
5 10 15 20
gaa ggt aag gag ggc aaa acc ccc tct aag gag aag aag aag aag aag 210
Glu Gly Lys Glu Gly Lys Thr Pro Ser Lys Glu Lys Lys Lys Lys Lys
25 30 35
aaa aaa ggc aaa gag gaa gaa gaa aaa gct gcc aag aag aag agc aaa 258
Lys Lys Gly Lys Glu Glu Glu Glu Lys Ala Ala Lys Lys Lys Ser Lys
40 45 50
cac aag aag 267
His Lys Lys
55

<210> 2284

<211> 424

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 178..423

<400> 2284

attgcccaact ttactgtttt ggctccagac tgtcggttaag aatgtacagc ctaattctgg 60
tgtgttttcgg gatattcttc tgtccagtat tctggaaggc cgaggaggca tggcagcggt 120
ttactkgacg ttgatggtgc tgtgaagtcc attctttcct ctgcaagact actgact 177
atg cag aaa ttt atc gaa gcg gat tat tat gaa cta gac tgg tat tat 225
Met Gln Lys Phe Ile Glu Ala Asp Tyr Tyr Glu Leu Asp Trp Tyr Tyr
1 5 10 15
gaa gaa tgc tcg gat gtt tta tgt gca ccc tca ggc cac ttt tat tta 273
Glu Glu Cys Ser Asp Val Leu Cys Ala Pro Ser Gly His Phe Tyr Leu
20 25 30
aac aga agc agc ggc ccc aca gcc acg ggg aca tgt ctt cca gac agt 321
Asn Arg Ser Ser Gly Pro Thr Ala Thr Gly Thr Cys Leu Pro Asp Ser
35 40 45
aga cac agt gcc tgt ggc tgt aag agc ctg aca ggg aag att cat gcc 369
Arg His Ser Ala Cys Gly Cys Lys Ser Leu Thr Gly Lys Ile His Ala
50 55 60
ttt ctc ctt ggn ccc atg acc aaa gaa gaa aat aaa aat cac aca cca 417
Phe Leu Leu Gly Pro Met Thr Lys Glu Glu Asn Lys Asn His Thr Pro
65 70 75 80

tac act g
Tyr Thr

424

<210> 2285
<211> 365
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 77..364

<400> 2285
agccccacgt gaggtctggt aggactgagg acgtatttgt tttcttcaag catttggtcg 60
agattaagaa ttaaaa atg tca tcc aaa caa gaa ata atg agt gac cag cgg 112
Met Ser Ser Lys Gln Glu Ile Met Ser Asp Gln Arg
1 5 10
ttt aga cgg gtt gca aag gac ccg aga ttt tgg gaa atg cca gaa aag 160
Phe Arg Arg Val Ala Lys Asp Pro Arg Phe Trp Glu Met Pro Glu Lys
15 20 25
gat cga aaa gtc aaa att gac aag aga ttt cga gcc atg ttt cat gac 208
Asp Arg Lys Val Lys Ile Asp Lys Arg Phe Arg Ala Met Phe His Asp
30 35 40
aag aag ttc aag ttg aac tat gcc gtg gat aaa aga ggg cgc ccc att 256
Lys Lys Phe Lys Leu Asn Tyr Ala Val Asp Lys Arg Gly Arg Pro Ile
45 50 55 60
agc cat agc act aca gag gat ttg aag cgt ttt tac gac cnn tca gat 304
Ser His Ser Thr Thr Glu Asp Leu Lys Arg Phe Tyr Asp Xaa Ser Asp
65 70 75
tct gat tcc aat ctc tct ggt gaa gat agc aaa gca ttg agt caa aag 352
Ser Asp Ser Asn Leu Ser Gly Glu Asp Ser Lys Ala Leu Ser Gln Lys
80 85 90
aaa ata aag aag a 365
Lys Ile Lys Lys
95

<210> 2286
<211> 271
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 101..271

<400> 2286
tttattatat aaatatatat tcacctagca acatatctct gccgtctctc ctgctctcat 60
aatgaagaca tagccgattc tctgcccggg ccccttgctg atg ctc ctc cgg gtc 115
Met Leu Leu Arg Val
1 5
tgc gtc ggg cgt ggg tct ctg ggg acc ctc cag agg tgg agg tgg gct 163
Cys Val Gly Arg Gly Ser Leu Gly Thr Leu Gln Arg Trp Arg Trp Ala

	10		15		20	
gat ggc ctg gct gcc tgg tgg ttg atg gtt ttg ctc ccc cta cct ttt						211
Asp Gly Leu Ala Ala Trp Trp Leu Met Val Leu Leu Pro Leu Pro Phe						
	25		30		35	
ttt ttt gag ttt aty ctg att gat ttt ttt yct tgg ttt ctg gat aaa						259
Phe Phe Glu Phe Ile Leu Ile Asp Phe Phe Xaa Trp Phe Leu Asp Lys						
	40		45		50	
cca ccc tct ggg						271
Pro Pro Ser Gly						
	55					

<210> 2287
 <211> 312
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 57..311

<400> 2287	
aagaccactg ggacaattca gtatggcaaa ggtgaccagt gagccacaga agccta atg	59
	Met
	1
aag atg tgg acg aac aca ccc cat caa cct caa gta cca aag gga gga	107
Lys Met Trp Thr Asn Thr Pro His Gln Pro Gln Val Pro Lys Gly Gly	
	5
	10
aga agg gga aga cac ccc gtc aaa cga agg tcc aga agc ggc gtt aag	155
Arg Arg Gly Arg His Pro Val Lys Arg Arg Ser Arg Ser Gly Val Lys	
	20
	25
	30
ggc cta aag acc acc agg aag gcg aaa aga ccc ctt cga ggg agc tcg	203
Gly Leu Lys Thr Thr Arg Lys Ala Lys Arg Pro Leu Arg Gly Ser Ser	
	35
	40
	45
agc caa aaa gcc ggt gaa act aac acc cct gca gga aaa cct aag aaa	251
Ser Gln Lys Ala Gly Glu Thr Asn Thr Pro Ala Gly Lys Pro Lys Lys	
	50
	55
	60
	65
gct aga gga cca ata ctg cgt ggt cgt tat cac cgg ctg ana gnn aaa	299
Ala Arg Gly Pro Ile Leu Arg Gly Arg Tyr His Arg Leu Xaa Xaa Lys	
	70
	75
	80
atg aag aaa gaa g	312
Met Lys Lys Glu	
	85

<210> 2288
 <211> 214
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> 59..214

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<210> 2289
<211> 361
<212> DNA
<213> Homo sapiens
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<400> 2289																
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Met																
1																
gcg tcc ggg cct cat tcg aca gct act gct gcc gma gcc gcc tca tcg	104															
Ala Ser Gly Pro His Ser Thr Ala Thr Ala Ala Xaa Ala Ala Ser Ser																
5 10 15																
gcc gcc cca agc ncg ggc ggc tcc agc tcc ggg acg acg acc acg acg	152															
Ala Ala Pro Ser Xaa Gly Gly Ser Ser Ser Gly Thr Thr Thr Thr Thr																
20 25 30																
acg acc acg acg gga ggg atc ctg atc ggc gat cgc ctg tac tcg gaa	200															
Thr Thr Thr Thr Gly Gly Ile Leu Ile Gly Asp Arg Leu Tyr Ser Glu																
35 40 45																
gtt tca ctt acc atc gac cac tct ctg atw ccg gag aga ggc tct cgc	248															
Val Ser Leu Thr Ile Asp His Ser Leu Ile Pro Glu Arg Gly Ser Arg																
50 55 60 65																
cca ccc cat cca tgc agg atg ggc tcg acc tgc cca gtg aga cgg act	296															
Pro Pro His Pro Cys Arg Met Gly Ser Thr Cys Pro Val Arg Arg Thr																
70 75 80																
tac gca tcc tgg gct gcg wgc tca tcc agg ccg ccg gca tty tcc tcc	344															
Tyr Ala Ser Trp Ala Ala Xaa Ser Ser Arg Pro Pro Ala Phe Ser Ser																
85 90 95																
gky tgc cgc agg tgg cg	361															
Xaa Cys Arg Arg Trp																
100																

1500